Pursuant to Article 5 of the Telecommunications Law (Official Gazette of the Republic of Serbia no. 44/2003 and 36/2006), the Government adopts the

STRATEGY

for the Development of Telecommunications in the Republic of Serbia from 2006 until 2010

1. INTRODUCTION

The Strategy for the Development of Telecommunications in the Republic of Serbia from 2006 until 2010 (hereinafter: "the Strategy") comprises legal, institutional, economic and technical aspects of the development in the filed of telecommunications in the Republic of Serbia.

The Strategy contains an overview of the activities to be taken in order to achieve the objectives of the policy in the field of telecommunications until 2010 and it is based on the European experience in the development of the modern information society and uses the European Union guidelines for the development of telecommunications.

The Strategy is oriented, above all, towards the development of the telecommunications infrastructure and services through a consistent application of the Telecommunications Law, towards the enhancement of the European Union regulatory framework, *acquis communautaire*, and towards the creation of the conditions for increasing the investments and inflow of foreign capital.

Rapid development of the telecommunications and information and communication technology in the modern world, which has already entered the era of digital separation, has got a strategic character and a manifold importance on the political, economic, social and informative level. In such conditions, for countries in transition such as the Republic of Serbia, the defining of strategic goals for the telecommunications development is of a particular state interest, with numerous impacts, first and foremost in the area of economic recovery and growth.

The telecommunications are one of the infrastructural branches of economy and the investments in telecommunications and information infrastructure are one of the main incentives for the economic progress. For the economy, information and communication technology is an instrument for modernization and enhancement of competition, and for the citizens it represents an instrument for a better access to information and for improvement of the quality of life. To the society, it offers new methods of communication and social dialogue, it contributes to the development of democracy and reduction of social and geographic discrimination. To a country as a whole, it gives a possibility to promote its image, broaden its interests, conserve cultural heritage and identity, maintain close contact with the diaspora and a possibility to create conditions for joining the European Union.

At the international level it is generally accepted that this type of strategy should be based on a competitive environment, which is best achieved by separating the regulatory and operational functions in the field of telecommunications. Having regard to this fact, and taking into account, above all, the limits set by the Telecommunications Law, legal provisions of the European Union, relevant documents of the international institutions where the Republic of Serbia is a member, or is

on the way of becoming one, regional initiatives in the telecommunications sector in which the Republic of Serbia participates, as well as the experience of the countries in the region, the starting point in preparing the Strategy was the present situation of the development of the telecommunications infrastructure in the Republic of Serbia, structure and volume of the telecommunications market and needs expressed through different sector policies in the economy of the Republic of Serbia.

The strategic importance of globalization is intensified by liberalization, privatization, technological development, increased users' demands, international agreements establishing reciprocity between the signatory countries and multilateral competition in convergent telecommunications market. Strategic partnerships between large companies are leading towards globalization of telecommunications services, telecommunications market in general and development policies and orientations.

The aim of the liberalization of the telecommunications sector, promoted in the World Trade Organization and the European Union, is to develop competition in the telecommunication market, which involves necessary reforms in order to enable new market entrants and to attract domestic and national investments. The increased investments in the telecommunications have a highly positive effect on the efficiency in other economic sectors, which ultimately stimulates the overall economic growth.

The basic characteristics of the information and communication technology market development in the last six years are the saturation of the mobile and fixed telephony markets, stagnation in the development of the leading telecommunication equipment producers, indebtedness of the prominent telecommunications operators, drop in equity value in the capital markets and less certain and less attractive investments and tenders in the developing countries, in regard to the general process of liberalization of this market. In spite of the mentioned problems and difficulties, during the last two years, the ICT market has been consolidated, due to evolution of telecommunications activities in the developing regions and significant overall growth and development of ICT.

Typical of the developing countries are large investments in the information infrastructure, i.e. in the telecommunications networks and systems development, whereas the prices of network access remain high. The share of ICT in the gross domestic product is around 10% in the developing countries, and in the highly developed countries it is under 9%. This is a kind of phenomenon of convergence and gradual coming together of the two poles in the world of digital division, where, in the developing countries and countries in transition the progress is reflected in the development of the infrastructure and services, whereas in case of the highly developed countries it is characterized by the application of new technologies and technical solutions with the access networks (broadband systems and services).

The reports of the European Commission regarding the analysis of the conditions for the accession of new Member States in the European Union comprise the following elements for perceiving the level of development of telecommunications in certain countries:

1) clear and transparent Policy and Strategy for the telecommunications sector and information society development and harmonization of legal regulations with the Directives of the European Union;

2) privatization and restructuring of the incumbent operators;

3) amount of financial means intended for investments into research and technological development in the telecommunications sector;

4) accessibility of research and development programs for the participation of companies, universities, institutes and experts from the European Union and degree of participation in the research and development programs of the European Union from the telecommunications sector and in the development of the information society;

5) the achieved and planned level of penetration in fixed and mobile telecommunications networks, the level of Internet usage and achieved and planned level of network digitalization;

6) volume of investments in the construction of telecommunications infrastructure;

7) existence and elaboration of by-laws;

8) availability of the universal service;

9) compliance of the technical standards and regulations for telecommunications equipment with the European Union;

10) membership in the international organizations.

According to the analysis of the current situation in the telecommunications sector in the Republic of Serbia and having an insight into the situation of the telecommunications sector in the countries in the region and in the countries of the European Union, and the orientation being to reach the level of the telecommunication sector of the developed countries of the European Union, adequate measures need to be taken in order to achieve the goals and orientations defined in the Strategy within set timeframe, in particular the following:

1) significant increase of the telecommunications' share in the total gross domestic product;

2) attracting foreign and domestic investments, by adopting incentive measures in order to create simulative and favourable business environment;

3) full digitalization of the telecommunications infrastructure, as a key prerequisite for building the information society;

4) reaching the average European level of development of the telecommunications;

5) providing that the Internet is available to everyone, and that it is fast, inexpensive and secure;

6) promoting the development of web economy;

7) increase in the participation of domestic industry and knowledge in the development of the telecommunications sector in the Republic of Serbia and ensure its restructuring in order to enter world market;

8) harmonization of the development of telecommunications infrastructure with the requirements set in the strategies for other sectors, in particular with the Strategy for the Development of Information Society;

9) ensuring efficient access to information and knowledge;

10) increase in the level of knowledge and education relating to information and communication technology, by building telecommunication infrastructure and information society.

The strategic goals of the development in the telecommunications sector are elaborated in the Action Plan given in Annex 1, which is printed together with this Strategy and is its integral part.

Field of telecommunications and for preparation of normative and other documents from the field of telecommunications.

Bibliography used in preparing of the Strategy is the following:

1) The Basis for Developing the Strategy for the Telecommunications Sector ("Official Gazette of the Republic of Serbia", no. 28/06);

2) Telecommunications Law ("Official Gazette of the Republic of Serbia", no. 44/2003 and 36/2006);

3) Broadcasting Law ("Official Gazette of the Republic of Serbia", no. 42/2002, 97/2004, 76/2005, and 79/2005);

4) Decisions and recommendations of the International Telecommunication Union (ITU);

5) Directives within *acquis communautaire*;

6) Recommendations of the Community of European PTTs (CEPT);

7) Millennium Development Goals (Millennium Summit of the United Nations);

8) Declaration of principles and action plan of the World Summit about Information Society, (*WSIS*, Geneva 2003 and Tunis 2005);

9) Strategy of Broadcasting Development in the Republic of Serbia until 2013 ("Official Gazette of the Republic of Serbia", no. 115/2005);

10) Strategy for the Reform of the State Administration;

11) Strategy for Encouragement of Foreign Investments ("Official Gazette of the Republic of Serbia", no. 22/06);

12) Strategy for reduction of poverty;

13) Strategy for the Development of Information Society;

14) Resolution on the Accession to the European Union;

15) Memorandum of Foreign Trade Regime (Accession the World Trade Organization - WTO);

16) regional initiatives – Memorandum of Understanding and Action Plans;

17) Memorandum on the Budget and Economic and Fiscal Policy for 2007, with projections for 2008 and 2009.

18) Radio-frequency Spectrum Assignment Plan ("Official Gazette of the Republic of Serbia", no. 112/04);

19) Frequency/location Allocation Plan for Terrestrial Analogue FM and TV Broadcasting Stations for the Territory of the Republic of Serbia ("Official Gazette of the Republic of Serbia", no. 6/06).

Abbreviations used in the text of the Strategy have the following meaning:

Law – Telecommunications Law

RATEL – Republic Telecommunication Agency

Acquis communautaire – legal regulations of the European Union

EU – European Union

ICT – Information and Communications Technology

GDP – gross domestic product

EC – European Commission

3G system – third generation telecommunication network

VoIP – Voice over Internet Protocol

Roaming – service with which an operator provides access to network and usage of services to its users/subscribers when they are outside the territory covered by the operator's network

Penetration – number of subscribers/users per 100 inhabitants expressed in percentage

IMF – International Monetary Fund

ISDN –Integrated Service Digital Network

GSM – Global System for Mobile Communication

ADSL – Asymmetrical Digital Subscriber Loop

GPRS – General Packet Radio Service

EDGE – Enhanced Data Rates for GSM Evolution

on-line – line operating constantly

dial-up – Internet line connected by dialling, using switched telephone lines, with automatic response of the dialled modem

GSM 1800 – mobile telephony operating in the frequency band of about 1800 MHz (using DCS 1800 and GSM standard)

2G system – second generation telecommunication network;

English version prepared by RATEL, November 2006

VSAT station – satellite station with Very Small Aperture Terminal

IT – information technology

EITO – European Information Technology Observatory

UMTS – Universal Mobile Telephone System

SMP – Significant Market Power

LLU – Local Loop Unbundling

FWA – Fixed Wireless Access

Initiative i2010 – European Information Society 2010

PSTN – Public Switched Telecommunication Network

"Telekom Srbija" – Telecommunications undertaking "Telekom Srbija", Joint Stock Co.

SEE Observatory – South East European Observatory

KDS – Cable distribution system

2. IMPORTANCE AND ROLE OF MODERN TELECOMMUNICATIONS

2.1. Basic characteristics of the modern society and economy in the conditions of expansion and convergence of information and communication technology

Modern telecommunications are one of the principal driving forces of the new economy, characterized by the fusion of ICT and its applications.

Basic characteristics of the modern communications are as follows:

1) The telecommunications industry became dominant in the world in the last 10 years. According to Forbes list, in 2005 there were 68 telecommunications companies among the 2000 largest world companies. This is not just the result of growth of some of the companies, but also of merger, joint investments and take-overs of other companies, all these being important elements of the globalization process.

2) The globalization of telecommunications services, telecommunications market and developing policies and orientations is particularly aided by strategic alliances between large companies.

3) Digital division and e-economy are rapidly changing the nature of global economy, which is based on competitive telecommunication networks, Internet technology and computer recourses, and continuously decreasing costs of communication. Prerequisites for making room for introduction of the e-economy are developed telecommunication infrastructure, diffusion of Internet and development of application for promotion of education, health system, management, electronic services and government (for instance telemedicine, distance learning, e-government, etc.)

2.2. Characteristics of the modern ICT market

Global ICT market in the period 2000–2005 was characterizes by the fastest and best investments return compared to all branches of economy and its volume increased by 60%. The annual growth of the global telecommunications sector in 2005 was 10%, and the ICT market share in the gross world product was 8.8%. The total income in 2005 was estimated at 2,112 billion EUR. The largest portion of income concerns telecommunications services market (996 billion EUR in 2005), followed by IT hardware (921 billion EUR in 2005) and software and services of IT sector (195 billion EUR).

Based on the world ICT market trends in 2005, the following three main directions can be observed:

1) Gradual recovery of a number of leading operators and manufacturers, affected by the recession in the telecom sector in 2000;

2) Implementation of the new generation hardware and services;

3) According to data of the EITO organization, in 2005 ICT sector in the EU achieved growth of 2.9%. Here, IT sector recorded increase of 3.7% (IT services increase 4.6%, IT hardware increase 2.1%), mobile telephony increase of 3.4% and fixed telephony decrease of 2.3%. Fixed telephony services in the EU, after years of growth, reached a phase of stagnation, and even a decrease in the service volume. Last year brought about a considerable increase in the number of users of 3G systems, amounting to 23.7 million in late 2005.

In 2005, in the EU the volume of data transmission service increased by 9%, and Internet service by 23%.

The liberalization of telecommunications market and the introduction of competition have brought about numerous changes in the status of incumbent state operators with monopoly status in the telecom market. These incumbent operators had to adapt their business strategy and organization to the new conditions and rules of the market. Big telecommunications operators who ventured large investments in external markets at the time the worldwide industrial dominance of telecom sector was at its peak (1998-2000), began to experience financial difficulties and lose creditors' trust. Nevertheless, most of the dominant telecom operators adapted remarkably to the new circumstances and kept the leading position in the fixed market (international traffic and local calls) and, at the same time, gained significant initial advantage in the mobile and Internet service markets thanks to the built infrastructure and new investments.

The leading telecom companies resort to measures of business rationalization, as well as to merger and new strategic partnerships. Economic experts for the telecom sector expect further consolidation and recovery of dominant European operators, noting that smaller companies will be exposed to bigger blows and risks in the market segments that they currently cover.

Tabular view of the increase in income of certain ICT market segments in the EU and their proportional share in GDP is given in Annex 2, which is printed together with this Strategy and is its integral part.

In the period from 2003 until 2005 a large increase in income can be noted in the field of telecommunications services, 17.5% and in the sector of IT software and services, 23.6%, whereas in the sector of telecommunication equipment there is a decrease in income. Another important conclusion regards the share of the telecommunication services sector (as the largest) and the IT software and services sector in the total ICT turnover, which increased from 50% to 60%.

3. SITUATION IN THE COUNTRIES OF THE EUROPEAN UNION

The decision on introducing full liberalisation, of 1 January 1998, had major importance for further development of the telecommunications sector in the EU. In the first two phases of the development of the regulations in the period 1998-2001, thesis and recommendations referring to universal service, user protection, UMTS tenders and auctions and activity of the national regulatory authorities were prepared.

The new EU regulatory framework for electronic communications networks and services from 2002 (Regulatory Framework 2002) has been applied in the EU Member States since 25 July 2003. It should be pointed out that in Europe a new term, "electronic communications", has been accepted, instead of the classical term "telecommunications", due to convergence of telecommunications and ICT. The new EU regulatory frame prescribes simplified conditions for the market entry, conditions of fair competition and control of work of the operators declared as having significant market power on the basis of the analysis performed by national regulatory authorities.

The basic principles of the new regulatory framework are such that the same rules apply to all telecommunication services and networks regardless the technology used (Framework Directive 2002/21/EC, Authorization Directive 2002/20/EC, Access Directive 2002/19/EC, Universal Service Directive 2002/22/EC, Directive on Privacy and Electronic Communications 2002/58/EC, Full Competition Directive 2002/77/EC, regulatory framework for electronic networks and services 2002/C 165/03, Regulation 2887/2000 EC of the European Parliament dated 18.12.2000 on unbundled access to the local loop). These rules envisage the introduction of General Authorisation and Individual Licence. General Authorisation enables entry to telecommunications market to all participants that fulfil general conditions and standards for performing a telecommunication activity. Individual License is granted in cases where scarce recourses are involved (frequency spectrum, orbits and numbering).

Established regulatory framework sets new rules for defining relevant markets and operators with significant market power (SMP), which are based on competition principle.

Also, The EU regulatory framework envisages redefinition of relations between national regulatory authorities and the EC, where the EC has got a more precise control over measures taken by the national regulatory authorities. In the redefined relations between national regulatory authorities and the EC, national regulatory authorities are given a greater freedom in defining an SMP operator and there is a greater degree of the institutionalization of relations between national regulatory authorities and the EC.

In this regard, national regulatory authority is responsible for implementation of the national strategy in accordance with the Law and regulation of the telecommunications market. According to the new EU regulatory framework, the activities of the national regulatory authorities are directed towards the development and enhancement of the competition in the access networks markets.

The activities of national regulatory authorities comprise the following:

1) local networks and LLU;

2) carrier pre-selection, carrier selection, and number portability;

3) FWA, alternative solutions for access networks (the process of license granting has virtually been completed in all EU Member States);
4) tariffs and interconnection (trend to cut down the tariffs and their equalization across EU, by applying cost-oriented models);

5) UMTS (the license granting for this standard has been completed);

6) privacy protection, protection of traffic data, location data, prevention of unsolicited communication.

In the past years, the EC dedicated particular attention to relevant market definition and defining SMP operators, based on impartial, transparent and non-discriminatory conditions, and to imposing appropriate obligations on SMP operators.

As far as the situation in the telecommunications sector in the Central and East European countries is concerned, in most of the countries the mobile, Internet, data transfer, cable TV and value added services markets have been liberalized and, in some cases, this also applies to the building and operation of the telecommunications infrastructure. Furthermore, incumbent operators have been transformed into joint stock companies with dominant state share and subsequently privatized, and institutional reforms, which include modernization of the technological program and tariff rebalancing, have been carried out. The privatization of the incumbent operators makes it possible to attract a renowned strategic partner, to introduce foreign expert management knowledge, an easier access to international financial institutions and capital markets, and represents a significant source of income for the Government.

Tabular view of basic data on the telecommunications sector in some of the EU countries in 2005, and some of the countries in the region is given in Annex 3, which is printed together with this Strategy and is its integral part.

Tabular view of broadband services penetration in the developed European countries is given in Annex 4, which is printed together with this Strategy and is its integral part.

In the period from 2005 to 2010, the telecommunications sector in the EU is expected to have an average annual growth of 0.8% (growth of 2.7% for mobile telephony and decrease of 1.9% for services using wired infrastructure).

In 2005 average monthly income per capita in the telecommunications market was around 22 EUR for services using wired infrastructure and 28 EUR for mobile systems services. It is estimated that in 2005, the average income from the mobile systems in the five biggest European markets was 4.67 times higher compared to fixed telephony systems. It is expected that by 2010 the income from mobile systems and services will decrease by 27.2%, compared with the decrease of 24.9% in the income from fixed telephony. One of the main reasons for the drop in prices will be a widespread application of VoIP, both in fixed and mobile telephony.

In the beginning of 2006, the EC examined the draft proposal for the reduction of tariffs for roaming throughout Europe. Independent analysts feel that, once introduced, these reductions will have serious impact on the income of the telecommunications sector in the EU.

During 2005, the interconnection fees in the EU decreased on average by 12.2%. It is expected that this trend of interconnection fees decrease will accelerate in most of the European countries and that the average decrease by the end of 2006 will amount to 14.8%. It should be pointed out that business risk in the telecommunications sector is uniform throughout the EU, due to

large differences in the prices for fixed to mobile network calls. For instance, in Greece, 12.8% of income comes from fixed to mobile network calls, which represents 30.1% of gross income, whereas in Germany these values equal 5.7% and 9.3%, respectively.

On 1 June 2005, the EC adopted a five-year strategy, Initiative i2010, in order to strengthen the growth and create jobs in the area of information society and media industry. Initiative i2010 is a comprehensive strategy for modernization and placement of all instruments of the EU business policy, in order to encourage the development of digital industry. The EU will particularly promote the development of safe broadband telecommunication networks.

In order to endorse the technological progress, the EU will promote, in particular, efficient policy for frequency spectrum management in Europe, modernization of the rules on audiovisual media services, updating of the electronic communications legal framework, development of the strategy for safe information society and a comprehensive approach for effective management of digital rights.

i2010 initiative defines the measures for investments into ICT research in the EU to be larger by 80%. Europe is behind in the ICT research, investing only 80 EUR per capita compared with Japan (350 EUR) and the USA (400 EUR).

In order to promote a comprehensive European information society, the EC will propose an action plan for e-government services, a series of initiatives which should enable the multimedial and multilanguage European culture to be available to everyone, and also activities aimed at overcoming the geographic and social digital division, which is the peak of the European initiative for e-comprehensiveness.

i2010 initiative is the first EC initiative to be adopted according to the renewed EU Lisbon Strategy and it focuses on the most promising sector of industry in the EU. Namely, ICT represents 40% of the increase of European production and 25% of GDP within the EU. The Member States should set the priorities of the national information societies in their national programs of reforms.

4. SITUATION IN THE TELECOMMUNICATIONS SECTOR IN THE REPUBLIC OF SERBIA

4.1 Analysis of the legislative and regulatory framework and socio-economic environment in the Republic of Serbia

4.1.1 Legislative and regulatory framework for the telecommunications sector in the Republic of Serbia

Telecommunications sector is regulated by the law, which is in compliance with *acquis communautaire* (1998 regulatory framework). The principles on which the regulation of relations in the telecommunications sector is based are: to ensure conditions for the development of telecommunications in the Republic of Serbia; to protect interests of telecommunications service users; to create conditions for satisfying the users' needs for telecommunications services; to promote competition, economy and efficiency in telecom sector activities; to ensure maximum quality of telecommunication services; to ensure interconnection of telecommunications networks, i.e. of telecommunications operators under equal and mutually acceptable conditions; to ensure

rational and economical usage of radio-frequency spectrum, to harmonize telecommunications sector activities with international standards, practice and technical norms. In this way, the liberalization of telecommunications market and creation of conditions for an efficient competition are ensured.

Pursuant to the Law, RATEL has been established as an autonomous, i.e. independent organization, which started with its work in August 2005.

4.1.2. Socio-economic environment and macro-economic trends in the Republic of Serbia

Macro-economic developments in the Republic of Serbia in the 2001-2005 period show positive trends and significant progress with all macro-economic and structural indicators, unlike the period until 2000, which was marked by a high level of political tension and therefore economic instability.

In the period from 2001 until 2005:

1) high growth of GDP was achieved, macro-economic stability and stability of exchange rate were established, accompanied by constant growth of foreign exchange reserves;

2) high GDP growth in real terms was achieved, on average 5.6% annually, which is primarily based on industrial growth, growth of agricultural production and a significant growth in the service area, in particular the postal and telecommunications services, and a significant cumulative increase in GDP of 31.1% was achieved as a result of economic policy of the previous period;

3) foreign trade exchange was marked by an unfavourable tendency of a faster growth of import compared to export, which brought about a high deficit in foreign trade. However, in 2005, the export was significantly increased and the import was decreased compared with the previous year, which led to a decrease in deficit;

4) high growth of economic activity and export was accompanied by a two-figure inflation, which had had a high increase in the previous decade. The inflation was decreased from 91.8% of 2001 to 16.5% in 2005 (annual average) which is a significant result considering the fact that it was achieved in conditions of increase in prices of crude oil and correction of price disparity;

5) stability of the general level of prices was based on the stability of exchange rate, firm monetary policy, fiscal policy and policy of wages in the public sector;

6) in the area of the standard of living of the citizens, a great progress has been made; there was a significant real increase in average net wages, from 102 EUR in 2001 to 138 EUR in 2005 (total employment rate decreased due to privatization and company restructuring);

7) a significant progress was made in the implementation of structural reforms, in particular in the area of the privatization of companies and privatization and consolidation of banking sector, as well as a significant increase in the inflow of foreign Greenfield investments.

During 2006, the growth of economic activity in the area of industry and services and the increase in export continued, the inflation is moving within projected framework, the three-year financial arrangement with IMF was completed, which contributes to the stabilization of political and economic circumstances in the country, new conditions were created for the debt of 700 million

dollars of the Republic of Serbia to the Paris Club to be written off and for the share of the public debt of the Republic of Serbia to be decreased.

With regard to developments in 2006 so far, economic policy measures that have been taken and accelerated structural reform, it is estimated that GDP growth will be considerably higher and inflation will be below the increase projected in the economic policy for 2006 and will amount to some 7% and 9%, respectively.

4.2. Telecommunications infrastructure and services

4.2.1. Public switched telecommunication network

Even after the monopoly has expired, "Telekom Srbija" is the only public telecommunications operator in PSTN providing all existing types of fixed telecommunications services to users. "Telekom Srbija" has about 2.7 million fixed users, 290 thousand of them having party line and 350 thousand connected to analogue telephone exchanges.

PSTN enables public voice services, data transfer and leased lines services, Internet services, broadband services and cable distribution network services.

Present level of the development of PSTN is still not the level that would satisfy the needs of citizens and industry, which is why further development needs to be accelerated in the period ahead.

Tabular view of data used in preparing the second report of SEE Observatory with the situation on 1 November 2005 is given in Annex 5, which is printed together with this Strategy and is its integral part.

4.2.2. Public mobile telecommunications networks

In the telecommunications market of the Republic of Serbia there are two public mobile telecommunications networks of GSM standard and the services are provided by two operators: "Telekom Srbija" and Telenor.

In addition to the voice service, both networks also provide data transfer services in accordance with the technical possibilities of GSM technology. Both operators have been granted an additional license for UMTS service provision as of 2007.

By selling Mobi63 enterprise, the issue of cross ownership has been solved and, at the same time, the privatization of this operator has been completed.

Gross income from mobile telecommunications services in 2005 with both operators together was around 34 billion dinars and its absolute value approximated the income from PSTN. In the last three years, around 440 million EUR have been invested into this sector. The penetration in this sector is 73.03%. Since the mobile penetration in the developed EU countries is over 97% (Germany 95.78%, Austria 99.88%, Italy 123.15%), and also in the countries like Hungary 92.3% and Slovenia 89.44%, it means that there is still room in the Serbian market for a gradual increase in the number

of mobile users. Further investments will involve, in particular, the development of UMTS network and additional services.

Tabular view of data on mobile subscribers per 100 inhabitants used in preparing the second report of SEE Observatory is given in Annex 6, which is printed together with this Strategy and is its integral part.

4.2.3. Internet services

First commercial Internet connections in the Republic of Serbia were realized during 1994 and 1995. By 1999, the total Internet bandwidth in the Republic of Serbia was around 2 Mbit/s, which was insufficient for the number of users at the time.

Today, capacities of international Internet access are much larger and the level of utilization of these systems is estimated at 50%. The reasons for it are insufficiently developed access network, insufficient volume of electronic business and a still low standard of living of the citizens.

In the Republic of Serbia there are over 40 Internet service providers, 10 of which with business on the national level and 30 on the local level. Most of them are buying "Direct Access to International Internet" service from "Telekom Srbija" for retailing to end users. It is estimated that today there are around 780,000 Internet service users in Serbia.

Gross income from Internet service in 2005 was around 20 million EUR. From the aspect of Internet access, the dial-up access over PSTN is the most common one.

Broadband Internet access is underdeveloped. "Telekom Srbija" has begun providing necessary capacities within its network which also enable broadband access to Internet through ADSL modem placed with the end user. So far, 26,000 ADSL users have been connected.

According to estimates, around 30,000 users access Internet via cable system. Both mobile operators (MTS 064 and Telenor) also provide broadband access to Internet using GPRS and EDGE technologies.

4.2.4. Private telecommunications networks

Large companies, such as Serbian Railways, Electric Power Industry of Serbia and Petroleum Industry of Serbia, Joint Stock Co. whose primary business is not telecommunications, have telecommunications networks for their own needs. The international regulations and practice indicate a possibility of public usage of the unused telecommunications capacities of the private and telecommunications networks of these companies in the telecommunications market.

4.2.5. Cable distribution systems

It is estimated that there are over 530,000 cable system users in Serbia and, according to RATEL records, there are 29 cable system operators. The number of cable distribution system users is expected to be around 2,000,000 by the end of 2010. Although most of the subscribers have been

connected in the last few years, more than 80% of cable operators have mostly coaxial networks the characteristic of which enable only one-way operation, i.e. radio and TV programs broadcasting.

4.2.6. Broadcasting systems

During the 1999 bombing, the national broadcasting system suffered major destruction causing catastrophic problems in technical and technological segment. Broadcasting capacities (transmitters and links), TV studio capacities and overall infrastructure suffered extensive damage. The situation is further aggravated due to inability to utilize the remaining capacities on the territory of the Autonomous Province of Kosovo and Metohija.

Broadcast equipment and links of public broadcasting institutions in the Republic of Serbia work even today with very much reduced emission and transmission capacities, with temporary, and often improvised technical solutions causing negative effects regarding the coverage of the Republic of Serbia with satisfying level and quality of radio and TV signal. At the Plenipotentiary Conference in Marrakesh in 2002, the Resolution 126-ITU was adopted regarding aid and support for the Federal Republic of Yugoslavia and reconstruction of its public broadcasting and telecommunication systems, but the aid envisaged by this resolution has still not been provided.

On 29 November 2005, the Republic Broadcasting Agency Council adopted the Strategy of Broadcasting Development in the Republic of Serbia until 2013. In accordance with the Radio Frequency Allocation Plan, Broadcasting Development Strategy, as well as other national and international regulations and agreements and on RATEL's proposal, the Ministry of Capital Investments adopted the Frequency/Location Allotment Plan for terrestrial analogue FM and TV broadcasting stations for the territory of the Republic of Serbia. The mentioned plan created conditions for harmonization of the existing broadcasting situation with the legislation, which is particularly significant, given that most broadcasting stations operate without permits. On the one hand, this frequently causes harmful interferences influencing the safety of human lives by disturbing air radio-navigation and other services and, on the other hand, it reduces RATEL's revenues from frequency usage.

In accordance with the Broadcasting Law and based on the adequate tenders announced by the Republic Broadcasting Agency, the procedure of license issuance to broadcasters for broadcasting radio and TV programs is underway.

Also, in accordance with the Broadcasting Law, Public Enterprise Radio Television Serbia has been transformed into Broadcasting Corporation of Serbia and Broadcasting Corporation of Vojvodina, which perform the activity of public broadcasting service.

However, a legal entity which will engage in distribution and emission of broadcasting signals has still not been formed, as planned under the Strategy of Broadcasting Development in the Republic of Serbia until 2013.

4.3. Promotion of research and development in the telecommunications sector

Scientific research and development work are the pillars of the telecommunications development. Furthermore, education, scientific research and development work are key contributors to the knowledge-based economy. In accordance with the telecommunications development in the Republic of Serbia, one of the set priorities is the development of education, scientific and research potential in the Republic of Serbia.

Research and development are mainly financed through projects of the Ministry of Science and Environment Protection. In the period 2002-2005, 13 projects form the telecommunications field were financed. The total financial means on annual level amount to approximately 630,000 EUR, which is below actual needs.

For the 2005-2007 period, 12 new projects from the field of telecommunications have been approved.

4.4. Conclusions on the actual situation of the development of telecommunications in the Republic of Serbia

In terms of regulations governing the telecommunications sector, formal conditions have been created for *de facto* elimination of monopoly in telecommunications, liberalization and establishing a competitive telecom services market. However, the Law does not stipulate the obligation of public switched telecommunication networks to provide LLU. Currently, in the conditions of non-balanced tariff system, "Telekom Srbija" is the only provider of fixed telephony services. The development and regulation of the telecommunications infrastructure and services market is in the authority of RATEL.

Although in the past years big structural reforms in the telecommunications sector have been started in the Republic of Serbia, they have not been carried out with necessary pace and consistency.

Legislative, regulatory and institutional reforms are still in the initial phase and, due to insufficient competition and non-balanced tariff system, the volume of the telecommunications market is way below its real potential.

Great progress was made by privatization of the state ownership in one of the two public mobile network operators and further development of competition is expected in this area.

Competition has been developed in cable distribution services and Internet access, but the access capacities usually have a low rate.

Technological falling behind in the building of telecommunications infrastructure have been considerably reduced, but the achieved level of development is still insufficient so as to satisfy the needs of the market and to provide universal service.

5. STRATEGIC GOALS OF THE DEVELOPMENT OF TELECOMMUNICATIONS SECTOR

In accordance with the orientations contained in the Basis for Developing the Strategy for the Telecommunications Sector, the strategic goals of the development of the telecom sector in the Republic of Serbia are the following:

1) Dedication to the development of telecommunications sector by means of the Strategy which is in accordance with the sector reforms in the EU;

2) Harmonization of legal and regulatory framework with the relevant EU regulations;

3) Implementation of fully transparent and non-discriminatory regulatory framework with clear provisions in regard to licence issuance to operators, network interconnection and tariff policy;

4) Liberalization and privatization in the telecommunications sector;

5) Promotion of development and strengthening of institutional framework for market liberalization;

6) Safeguarding of investments in the telecommunications sector;

7) Establishing of the fund for universal service cost recovery and ensuring availability of the universal service;

8) Increase in the share of telecommunications services in GDP;

9) Attracting of foreign and domestic investments by adopting incentive measures in order to create stimulating and promising business environment;

10) Network convergence and service convergence;

11) Creation of a regulatory framework that will enable, in accordance with the best European practice and available technology, convergence in terms of networks and in terms of services;

12) Uniform development of telecommunications infrastructure and gradual migration from the circuit switched networks for voice transfer to packet switched networks, accompanied by encouragement of infrastructure development in undeveloped regions;

13) Development of advanced third generation mobile networks and broadband fixed and wireless Internet access;

14) Introduction of advanced telecommunications services;

15) Reaching average level of telecommunications development in the EU;

16) Increase in the number of subscribers of public fixed and mobile telecommunications networks and the degree of Internet usage;

17) Tariff policy in line with the best European practice;

18) Enhancement of the business efficiency of the national operator “Telekom Srbija”;

19) Efficient radio-frequency spectrum management and its non-discriminatory usage;

20) Preparation and implementation of a modern numbering and addressing plan;

21) Strengthening of all aspects of security and safety of the telecommunications sector;

22) Introduction of digital broadcasting;

23) Enhancement and public commercial usage of unused telecommunications capacities of the public enterprises' private telecommunications networks;

24) Better conditions for professional and scientific training of engineers and researchers in the ICT sector.

25) Creation of prerequisites for development and market competitiveness of the national telecommunications industry.

6. DEVELOPMENT IN THE TELECOMMUNICATIONS SECTOR

6.1. Enhancement of PSTN development

The enhancement of the existing PSTN is influenced by:

1) further development of tariff policy and establishing tariffs based on cost-oriented method;

2) increase in the number of subscribers in order to reach the current EU average, with penetration rate of ca. 42%;

3) full PSTN digitalization;

4) development of access network of specific quality;

5) full elimination of party-lines by the end of 2008;

6) modernization of fixed network architecture by replacing the existing networks with the networks of the new generation, which will enable, in addition to the existing services, provision of new convergent multimedial IP-based services;

7) increase in capacity of the transport network in order to enable the functioning of all other operators and users of the existing fixed network;

8) growth of the Internet penetration rate to over 30%;

9) increase of broadband service users penetration;

Tariff policy in the telecommunications sector should ensure acceptable prices of services for residents and industry, with a different price structure stimulating the development of competition based on building of infrastructure;

One of the most important prerequisites for the development of telecommunications is the removal of disparity in fixed telephony prices, which would provide conditions for a long-term development within the telecommunications sector and building of the missing infrastructure, primarily in the access network.

Market liberalization will be carried out simultaneously with the SMP fixed operator's tariff rebalance, in order to enable the application of the principle of cost-based service prices. RATEL will set a special tariff regime for an operator with significant market power, which will not distort macroeconomic stability nor significantly influence inflation. Different methods will be used to set

the tariffs, beginning with the comparison with the best practice, with the aim of gradual introduction of cost-based methods.

6.2. Enhancement of the public mobile telecommunications networks development

Enhancement of the public mobile telecommunications networks development involves:

1) Licence issuance to the third mobile operator in accordance with the Basis for Developing the Strategy for the Telecommunications Sector;

2) Increase in the proportion of population and territory covered by mobile telecommunications services, with special emphasis on urban areas and areas of special significance in order to reach the penetration rate of around 97% present in the EU;

3) Increase in quality of service of mobile telecommunications in all conditions (indoors; outdoors; in urban, suburban and scarcely inhabited areas; in conditions of high-velocity and low-velocity motion or no motion);

4) Increase in the range of user services, in particular new generation mobile system services;

5) Introduction of EDGE and UMTS systems;

6) Increase in the possibilities of international roaming.

6.3. Enhancement of Internet and cable distribution network services

Data transfer and high speed Internet access networks are the principal infrastructure for information society. Therefore the development of these networks requires special attention, observing the principles of technologic neutrality.

In the following period, the development will be oriented primarily to broadband access and cable Internet. Broadband access involves constant on-line connection, with considerably greater flow compared with the usual dial-up access, which, in current technological conditions, means flow between 256 kbit/s and 2 Mbit/s for residential users and over 2 Mbit/s for business users.

As for the existing cable systems, it is necessary to harmonize their operation with the Law and relevant by-laws governing this area.

In order to provide broadband network connection to as many residents as possible at affordable price, relevant state authorities need to:

1) subsidize building of broadband networks in geographic areas where such building is not profitable for commercial providers;

2) provide public Internet access terminals in public places (schools, public institutions, libraries, post offices, train and bus stations, health centres, community centres, redemption centres for agricultural products, etc.);

3) prevent attempts of competition limitation and market monopolization;

The fact that modern cable and distribution system represents a multi-service and broadband telecommunications network, the services of which correspond ever more to the offer of other

networks, technical requirements for cable and distribution system building and for the work of operators need to be defined. Potential importance of cable and distribution systems is promotion of competition in the access area of classical telephone networks. In the subscriber area of the network, cable and distribution systems is a realistic alternative for voice transmission and Internet. Along with numerous other factors, the results achieved so far in expanding the frequency band covered by cable and distribution systems and constant process of converting these networks in a variant of "fibre to home", indicates further potential of cable and distribution systems as a multifunctional, broadband network. In this regard, it is of utmost importance to clearly define the conditions and relations of cable and distribution systems with other networks which offer mass services – voice and Internet in a traditional or an advanced form.

It is realistic to expect that, in the stated conditions, the number of cable subscribers in the Republic of Serbia could reach around 1.2 million within the next few years and that among them there would be several thousands of cable Internet users, is realistic.

Participation in regional and global initiatives in order to establish co-operation in common projects will enable a faster and more efficient building of information society.

6.4. Development of services using radiocommunications

6.4.1. Introduction

Radiocommunications, that is telecommunications realized via radio signals, have an increasing importance in the modern society and are characterized by a fast technological development.

Radio-frequency spectrum is an important and limited recourse that has to be used in a rational and non-discriminatory manner. While technology is being constantly developed, the models of spectrum management and regulation of its usage cannot follow so quickly the dynamics of the environment, and there is a danger for traditional models of spectrum management to hinder innovations and competition in the telecommunications market.

In this regard, the EC has amended the action plans for 2006 and 2007 by developing a market-based spectrum management, which will give more freedom in decision-making on spectrum usage. The plan is to establish a pan-European market for "spectrum licence" trade, by 2010, which will free more frequency bands and enable a greater number of companies to use them. In this way GDP in the EU would be increased by around 9 billion EUR, which would significantly contribute to the growth of competition and employment in the whole continent.

On 7 March 2002, the EU adopted directives, which, among other things, require Member States to ensure efficient frequency management through an impartial, transparent, non-discriminatory and proportional frequency allocation and assignment, which is considered to be the key factor for deregulation of spectrum management. Also, technological neutrality and neutrality in transmission and specific technical requirements need to be ensured in relevant frequency bands in order to avoid interferences and enable efficient spectrum usage. Competition among technologies can be very productive and liberalization allows users to decide on the best and flexible spectrum usage by applying new technologies. Also, frequency bands for flexible allocation and frequency bands for harmonized allocation need to be defined, but in such way that the already harmonized

bands be not exposed to liberalized management and the principles of spectrum management be modified only when success is certain, that is, unnecessary attempts and errors should be avoided.

Some of the mentioned European principles of frequency spectrum management have been included in the Radio Frequency Allocation Plan.

The Radio Frequency Allocation Plan is of great importance for the liberalization of the telecommunications market and rational radio-frequency spectrum management and it stipulates the conditions, allocation and priorities regarding the usage of frequency bands for different activities.

Also, it is necessary that, based on the Radio Frequency Allocation Plan and on RATEL's proposal, the Ministry of Capital Investments adopts radio frequency assignment plans for different activities defining the conditions for radio frequency assignment from the allocated radio-frequency band and, also, the frequency allocation based on locations, for one or more radio services and activities, in such way that rational frequency usage is ensured and interferences are avoided.

In view of transformation of different industries, some of which are being radically changed (electric power industry, railway, post, defence systems etc.), and the fact that for many activities there are no general or special development plans, the radiocommunications development plans for all activities cannot be elaborated in detail in this document.

Radiocommunications development plans for specific activities, that is, pertinent allocation plans will be adopted when suitable, on the basis of principles given under the Law, this Strategy and the Radio Frequency Allocation Plan, taking into consideration the users' needs and available spectrum.

6.4.2. Broadcasting systems

Broadcasting activity requires synchronized actions in the application of the Broadcasting Law and the Telecommunications Law, as well as in delivering the international commitments to international organizations where the Republic of Serbia is a member.

Principal directions of the broadcasting development are defined in the Strategy of Broadcasting Development in the Republic of Serbia until 2013, which is the development plan for the broadcasting activity and it contains appropriate guidelines for the development of both analogue and digital broadcasting.

Considering the fact that the major part of the public broadcasting system was destroyed during the war events in spring 1999, reconstruction and building of the broadcasting infrastructure should be planned in such way that the migration to digital technologies can be performed easily and with minimum costs.

Among other things, necessary reforms on the institutional, technological and regulatory level need to be carried out, as follows:

1) Harmonize the Law and the Broadcasting Law, in such way that the harmonized laws consider the convergence, i.e. increasing overlapping of the telephony market, broadcasting, Internet services and cable radio and television services;

2) Establish a public telecommunications network operator, which will provide services of technical broadcasting and radio and television signal transmission and which will be detached and independent from the producers and owners of the program content;

3) Fully establish the functioning of the public broadcasting service, in the public interest;

4) Prepare the action plan for concrete realization of the project of reconstruction of the demolished broadcasting system;

5) Base the future broadcasting development, whether for satellite, terrestrial or cable transmitting and broadcasting, entirely on digital technology with standards already in use, such as Digital Radio Mondiale (DRM), Terrestrial Digital Audio Broadcasting (T-DAB) and Digital Video Broadcasting (DVB) standards (DVB-S, C, T, H). The Republic of Serbia has adopted the standards for terrestrial broadcasting T-DAB and DVB-T.

6) Make the action plan for implementation of the results of the Regional Radiocommunications Conference for planning of the digital terrestrial broadcasting service in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz (RRC-06) and Regional Radiocommunication Conference for the Revision of ST61 Agreement, and establish the dynamics for the introduction of digital broadcasting;

7) Resolve the usage of the 790-862 MHz frequency band (TV channels 61–69) for broadcasting needs, considering that it is set under the Radio Frequency Allocation Plan that the 790–862 MHz be removed from fixed service of defence systems and assigned to broadcasting usage for television needs.

The concept and the approach regarding the reconstruction and building of the public broadcasting system are particularly analyzed in the documents of Public Enterprise Radio Television Serbia ("Study on directions for development and building of networks for broadcasting RTS program -2000", "General project of reconstruction of Public Broadcasting System from 2003") on the basis of ITU-126 Resolution adopted at the Plenipotentiary Conference, Marrakesh 2002, giving:

1) Damage estimate on single locations, i.e. data on destruction degree of single parts;

2) List of priorities for reconstruction, with estimated figures needed for reconstruction of single facilities (particularly for terrain clearance, infrastructure-buildings, antenna mast, power supply and technical equipment in particular).

Application of ITU-126 Resolution on international level is necessary, since in the previous four-year period only small help was received from the International Telecommunication Union and the attempt to provide a foreign donation failed despite the fact that in the first presentation of the project it received positive evaluation.

6.4.3. Mobile telecommunications networks

Building and service provision of the public mobile telecommunications network is based on the application of GSM and GSM 1800 digital standard (DCS 1800 standard) for 2G system and UMTS/IMT-2000 International Mobile Telecommunications standard for 3G system, in accordance with the Resolution 223 of the World Radio Conference (WRC-2000). The Ministry of Capital

Investments will adopt, on RATEL's proposal, adequate assignment plans for mobile networks, placing at disposal frequency bands which will be sufficient for feasible operators' business and satisfactory level of network development. In case there is a need from the market and technological aspect, the Ministry of Capital Investments will consider the necessity for assignment of new frequency bands for the needs of mobile telecommunications and, in accordance with the established needs, perform necessary modifications of appropriate radio frequency assignment plans.

6.4.4. Fixed wireless access

In order to stimulate competition, fulfil universal service obligation and apply technologies enabling fast building of access networks and primarily broadband access, the Ministry of Capital Investments will adopt assignment for fixed wireless access.

For this purpose, RATEL will prepare proposals of assignment plans for 3,5 GHz frequency band in accordance with the Basis for Developing the Strategy for the Telecommunications Sector and divide the territory of the Republic of Serbia into areas, i.e. towns, applying the criteria of attractiveness for foreign investors and technical optimality. Allocation of radio-frequency bands will be carried out in accordance with the Law, through a public tender procedure for a fixed telecommunications network licence. RATEL will primarily pay attention to long-term user protection, regulatory obligations and limits, numbering availability, promotion of market competition, amount of initial investments, technical and economic feasibility and, in particular, to efficient radio-frequency usage.

In case there is a need, RATEL will propose to the Ministry of Capital Investments to enable licence issuance for operation in other frequency bands as well for needs of building of networks which include fixed wireless access. With the development of the technologies enabling partial or complete mobility in the frequency bands allocated to fixed wireless access, it is necessary to propose modifications to the Radio Frequency Allocation Plan and assignment plans, following the international regulations and technical standardization.

6.4.5. Satellite communications

On the international level, the Republic of Serbia continues the membership in the international satellite organizations where the State Union of Serbia and Montenegro was a member: International Mobile Satellite Organization (*IMSO*), International Telecommunications Satellite Organization (*ITSO*) and European Telecommunications Satellite Organization (EUTELSAT). These organizations are engaged with provision of public telecommunications services via satellite to all Member States.

One of the prerequisites for the development of satellite communications is adoption of adequate by-laws, which will clearly define license and permit granting and set minimum technical requirements for satellite communications systems and equipment in accordance with the standards and norms of the International Telecommunication Union and *acquis communautaire*.

The principal directions of satellite communications development are the following:

1) Liberalization, introduction of efficient competition and application of market principles;

2) Planning of satellite the centre in Ivanjica as a platform for all radiocommunications satellite services;

3) Regionalization in telecommunications, perception of need and possibilities for using the existing plan for fixed satellite service (Appendix 30B of Radio Regulations) on a regional level in regard to individual usage;

4) Usage of satellite transmission for mutual connection of heterogeneous network segments and for direct provision of Internet access to legal entities (point-to-multipoint and multipoint-to-multipoint are particularly attractive, especially in broadband multimedial applications);

5) Usage of the existing and future global satellite systems for the Global Maritime Distress and Safety System and for Long Range Identification and Tracking of Ships and extension of these systems to land and aeronautical mobile satellite service, in accordance with the amendments to the Convention of the International Mobile and Satellite Organization – IMSO, adopted at the 18th Assembly of IMSO, in September 2006;

6) Usage of global satellite network for education and health services in rural areas and in cases of natural and ecologic catastrophe, which is supported by the International Telecommunication Union, in accordance with the conclusions from the World Summit about Information Society, (*WSIS*, Geneva 2003 and Tunis 2005);

7) Usage of VSAT stations as possible elements for connecting rural areas with the rest of the country's territory, that is, their equal participation in the country's telecommunications system.

6.4.6. Enhancement of radio-frequency spectrum management

Careful radio-frequency spectrum management, with application of new methods for spectrum planning, will enable the work of new technologies, which have greater efficiency in radio-frequency spectrum usage. The application of adequate procedures in frequency assignment will enable a non-discriminatory usage of this recourse by all interested parties.

In accordance to the Radio Frequency Allocation Plan, it is necessary to create conditions for migration of certain services to newly allocated frequency bands, creating necessary radio frequency space for new modern services, which are based on the latest technical and technological solutions. This, primarily, refers to migration of link system of the Serbian Army and the Ministry of Internal Affairs from the frequency bands allocated to broadcasting (TV, 61-69 channels) and development of GSM/GSM 1800 mobile systems and UMTS/IMT 2000 third generation mobile systems.

A condition for successful planning, management and efficient usage of frequency spectrum is adequate software and hardware support.

An important element of efficient frequency spectrum management is its control. In addition to dated equipment, special measuring vehicles, antenna systems and structures that have to be replaced, a modern concept of frequency spectrum management needs to be made, which should comprise, along with fixed and mobile control, remote control (without crew) as well. The introduction of new services and new way of frequency spectrum usage requires adequate control of monitoring and measuring equipment, software and new concept of monitoring and measuring

service together with adequate training of new staff, using long-standing and specific experience of the existing staff in the work of this service.

6.5. Development of private telecommunications networks

When developing private telecommunications networks it is necessary to:

1) consider the possibilities for the built capacities to be used for the needs of public administration, i.e. for creating e-government.

2) consider the possibility for unused capacities to be placed in public usage;

3) encourage the engagement of domestic production and performance capacities when building private telecommunications networks.

6.6. Development of domestic telecommunications industry

The principal development goal of the domestic telecommunications industry is preservation and further building through a strategic partnership with telecommunications operators, private telecommunications network holders and telecommunications defence systems holders in the market of the Republic of Serbia. In this way necessary transfer of knowledge and technology will be provided.

Domestic industry should have an important role in the production and delivery of the equipment, realization of works and performing of all associated services for the needs of telecommunications operators in the Republic of Serbia.

Part of telecommunications industry which is engaged in development and production of equipment and materials should involve scientific and research institutions in its developing projects on the basis of long-term programs. In this way, employment for young experts of different profiles is provided.

In the conditions of liberalized market, the quality, functionality and product price should be competitive compared with similar products of famous foreign producers.

By increasing the share of domestic industry in the building of telecommunications infrastructure and services, significant effect is achieved in the country's foreign currency balance and the increase in the employment rate.

In the period of Strategy application, restructuring of domestic industry needs to be stimulated, so that it can be included in the world trends.

6.7. Development of the regulatory framework

The development of the regulatory framework involves, above all, the harmonization of legal and regulatory framework with the EU regulatory framework, which will be carried out in accordance with the application of the Law and the degree of market liberalization and, therefore, a migration to a new regulatory framework, harmonized with the EU electronic communications regulatory framework, needs to be prepared.

It is necessary to create a new regulatory framework, which will enable, in line with the best European practice and developing technologic trends, convergence in terms of networks and services, where the regulatory framework needs to enable the application of the latest technological solutions and make available to the service users all benefits offered by these solutions.

It is necessary to improve the level of competence in all public administrations involved in telecommunications by developing new skills and knowledge, particularly in the area of spectrum management and regulation in the telecommunications area.

6.8. Fulfilling the obligation of universal service provision

The basic elements for the introduction of universal service are defined under the Law. In order to fulfil the obligation of introducing the universal service, the Ministry of Capital Investments defines the list of basic set o universal services on the proposal prepared by RATEL.

In order to fulfil the obligation of introducing the universal service RATEL needs to:

1) Make a detailed overview of the situation of telecommunications service provision in the whole territory of the Republic of Serbia. This overview should include data on the number of inhabitants/households, overview of their activities and needs for telecommunications, level of economic development of the particular community, natural resources, incidence of telecommunications infrastructure, incidence of single types of existing services, links with telecommunications environment, estimates in regard to complexity of funds required and timeframes for building the necessary infrastructure and introduction of services;

2) Prepare a proposal of a list of basic services of the universal service taking into consideration the needs of different regions on the territory of the Republic of Serbia, as well as the level of their economic development. Particular consideration should be given to the possibility of introducing the universal service by applying new advanced technologies for wireless access on fixed networks and by involving mobile communications services;

3) Designate public telecommunications network operator with the obligation to provide universal service;

4) Monitor the achieved level of universal service performance and, once it finds the conditions are favourable, propose to the Ministry of Capital Investments to adopt the decision on enhancement of universal service;

5) Form the universal service fund;

6) Elaborate in detail the costs of universal service and a possible mechanism of compensation;

7) Monitor relevant telecommunications market in order to avoid or remove any distortions, having regard to all economic parameters (tariffs, net costs, etc.).

The evaluation of the results achieved, consideration of measures for removal of the existing deficiencies and assessment of needs and possibilities for universal service enhancement will be carried out twice a year in the period from 2007 until 2010, and RATEL will make relevant reports which will be published.

6.9. Strengthening of all aspects of security and safety of the telecommunications sector

Public administration, citizens and businesses need to be guaranteed the usage of telecommunications services in a secure and safe manner. The security in regard to telecommunications networks enabling telecommunications service provision also need to be guaranteed.

A public telecommunications operator needs to take appropriate technical and organizational measures in order to ensure the safety of its telecommunications services. The measures taken need to guarantee the level of safety which corresponds to the level of danger for networks, having regard to the existing technical and technological solutions and the costs they require.

In case of particular danger for telecommunications networks safety, a public telecommunications operator needs to inform the users of its services that such danger exists.

6.10. User protection

Along with the right to undisturbed usage and quality public telecommunications service and the right to information privacy and safety, public telecommunications services or public telecommunications networks users also need to be guaranteed: access to directories, information on emergency services and other services of the universal service; possibility to receive an itemized bill from the public telecommunications operators, at their request and without special charge, showing the calls made and the cost of those calls for the relevant billing period; to receive prior information from the public telecommunications operator about all consequences of late payment of bills, including termination of service; to receive information from the public telecommunications operator about their rights and the obligations of the public telecommunications operator in case of termination of service or reduced quality of the services provided; lodge a complaint about the bill with the public telecommunications operator.

7. FINAL PART

This Strategy shall be published in the “Official Gazette of the Republic of Serbia”.

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Done in Niš, on 26 October 2006

Signed by:

The Government
the President,
Vojislav Koštunica

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