

**The Digital Dividend in Serbia**  
**Report by Europe Economics**  
**Volume 2: Other Country Summaries**

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This Volume is an adjunct to our main report, dated 23 June 2010, which values the Digital Dividend in Serbia. Here we merely reproduce, without comment, research by Cullen International and by Europe Economics (for ComReg in Ireland) concerning other jurisdictions during the last two years.

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## **1 SUMMARIES FROM THE CULLEN REPORT (2009)**

### **Croatia**

#### **1. Legal and institutional framework**

##### *Electronic Communications Act*

- 1.1 The Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008) entered into force on July 1, 2008 as the principal legal instrument for the electronic communications sector, defining the institutional framework, including the responsibilities of the government, the ministry and the national regulatory authority. It replaced the Telecommunications Act of 2003 and is intended to bring the law into line with the principles of the EU 2003 regulatory framework.

##### *Ministry of the Sea, Transport and Infrastructure*

- 1.2 The Ministry of the Sea, Transport and Infrastructure (MMPI) is the government department responsible for electronic communications<sup>1</sup>. It develops and promotes general principles, strategies and policy objectives for the electronic communications sector, adopts some of implementing legislation as prescribed by the Electronic Communications Act and approves the Radio Frequency Allocation Table on the proposal of the Council of the NRA. The Ministry also carries out inspections for the enforcement of the Electronic Communications Act and its subsidiary regulations.

##### *Croatian Post and Electronic Communications Agency*

- 1.3 The Electronic Communications Act established the Croatian Post and Electronic Communications Agency (HAKOM) as the national regulatory authority that took over the tasks and responsibilities of the previous regulators for telecommunications (the Croatian Telecommunications Agency, HAT) and for postal services (the Postal Services Council)<sup>2</sup>. HAKOM is an autonomous, independent body responsible for carrying out regulatory tasks defined under the Act, including the adoption and administration of implementing legislation within its competencies.
- 1.4 HAKOM is governed by a Council comprising seven members, of which two are appointed as the Chairman and Deputy Chairman. During their terms of office, the Council members are employed as full-time executives. The Council members are appointed and dismissed by the parliament acting on the proposals of the government. Appointment is for a period of five years with the possibility of reappointment. The NRA's administrative service which performs expert, administrative and technical tasks is

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1 <http://www.mmpi.hr/default.aspx?id=777>

2 <http://www.telekom.hr/Default.aspx>

managed by a Director, appointed by the Council for a period of four years, with the possibility of reappointment.

- 1.5 HAKOM is self-financed and is a non-profit legal entity with its own budget, funded from the three principal sources: addressing and numbering fees, radio spectrum usage fees and administrative fees determined as a percentage of the annual revenues of authorised undertakings. Any surplus at the end of the year is carried forward into the budget for the following year.

#### *Information society*

- 1.6 The Central State Administration Office for e-Croatia is a governmental office headed by a State Secretary. It is responsible for information society policy (in particular the e-Croatia Programme) and Croatia's e-government activities, based on the e-government strategy for the period of 2009 to 2012.
- 1.7 Other bodies that have information society responsibilities are the Central Bureau of Statistics (information society statistics), the Office of the Council on National Security (information security policy), the Institute for Information Systems Security (technical aspects of information security), the Croatian Academic and Research Network CARNet (it operates a Computer Emergency Response Team and is the national domain name registry), the Ministry of the Economy, Labour and Entrepreneurship (e-business and supervision of electronic signatures), the Croatian Accreditation Agency (accreditation of certification-service providers), the Ministry of Sea, Transport and Infrastructure (broadband), the Ministry of Health and Social Care (e-health), the Ministry of Justice (e-Justice) and the Ministry of Science, Education and Sports (e-education).
- 1.8 Croatia has implemented the Electronic Commerce Directive, the Electronic Signatures Directive and the Cybercrime Convention.

## **2. Regulatory independence**

#### *Privatisation and operational independence*

- 1.9 State involvement in ownership and control of the former monopoly operator, Hrvatske Telekomunikacije (T-HT), has been significantly reduced as the result of several stages of privatisation. These began in 1999 with adoption of the Act on Privatisation of Hrvatske Telekomunikacije. In October 1999 the government sold 35% of the shares to a strategic investor - Deutsche Telekom. Following the purchase of a further 16% of the shares in October 2001, Deutsche Telekom gained control of 51% of shares. In February 2005 the government transferred 7% of its shares to Homeland War Veterans Fund.
- 1.10 Following an IPO of 32% of the stock of T-HT in September 2007 and further sale of shares during 2008, the state's shareholding in the incumbent operator was reduced to 3.6%.

- 1.11 The Electronic Communications Act stipulates that the members of the Council of the NRA may not be owners or shareholders in regulated entities or perform any other tasks resulting in a conflict of interest.

*Administrative independence*

- 1.12 The Electronic Communications Act of 2008 emphasises the separation of the NRA regulatory tasks from policy making and state administration. In particular, the administrative supervision of the NRA by the ministry which was a feature of the previous Telecommunications Act is now removed. Furthermore, the ministry is limited to publishing guidelines and instructions for HAKOM regarding policy objectives and goals, but these should not influence the NRA's decisions in individual cases.
- 1.13 The Act also excludes the regulatory activities of the NRA from the application of provisions on administrative supervision of the General Administrative Procedure Act, meaning that HAKOM's decisions cannot be overturned by the Ministry. Appeals against the NRA decisions can only be brought before the Administrative Court of the Republic of Croatia.

**3. Market access and authorisations**

- 1.14 Croatia was the first among the monitored countries to introduce full liberalisation of fixed public telephone networks and services on January 1, 2003.
- 1.15 The Telecommunications Act of 2003 provided for a regime combining individual licences and general authorisation. Depending on the service characteristics and the use of limited resources, three categories of authorisations were issued by the regulator:
- concessions – for the provision public telecommunications services with the use of spectrum;
  - individual licences – for the provision of public telecommunications services in fixed networks, leased lines, cable TV services and PMR services.
  - general authorisation with notification to the NRA – for the provision of all other services including Internet access, VoIP, Value Added Services and Premium Rate Services (PRS).
- 1.16 The Electronic Communications Act of 2008 introduced a regime in which electronic communications networks and services can be provided without individual licences, subject to a general authorisation with a notification submitted to the Agency at least 15 days before starting activities. The necessary implementing legislation was adopted and entered into force in December 2008.
- 1.17 Individual licences continue to be issued by HAKOM for the right to use radio spectrum.

#### **4. Market structure**

- 1.18 The incumbent operator T-HT remains the main provider of public fixed telephony networks and services. In May 2006 T-HT acquired Iskon Internet, one of the leading alternative providers, who after the acquisition continues to provide voice telephony and Internet services in its own name. In addition to T-HT and Iskon, there are seven alternative operators active in the market.
- 1.19 At present, there are three mobile operators in Croatia that own their network infrastructure: T-Mobile (T-HT's mobile subsidiary), VIPnet (owned by mobilkom Austria) and Tele2 (controlled by the Swedish operator Tele2). T-Mobile and Tele2 have spectrum licences for provision of 2G services in the 900 MHz and 1800 MHz bands, while VIPnet – only in the 900 MHz. All three operators were issued spectrum licences in the 2100 MHz and have launched commercial 3G services.

#### **5. Significant market power**

- 1.20 Under the Telecommunications Act of 2003, the NRA analysed four national markets set out in line with the principles of the EU 1998 framework. The designation of operators with SMP was based on the application of the static threshold criteria of 25% market share (measured by revenue) in a relevant market combined with an assessment of other criteria specified in Article 51 of the Telecommunications Act of 2003. The regulatory obligations applicable to all operators with SMP were also pre-defined by that Act.
- 1.21 Accordingly, the NRA decisions of September 14, 2006 and March 30, 2007 designated the following operators as having SMP:
- T-HT (T-Com) and its 100% subsidiary, Iskon, as having joint SMP in public fixed telephone network and services (including voice services and services for transmission of voice, sound, data, documents, pictures, etc.);
  - T-HT (T-Com) as having SMP in leased lines;
  - T-Mobile and VIPnet as having SMP in public voice services on mobile networks;
  - T-Com, T-Mobile and VIPnet as having SMP in interconnection.
- 1.22 The new Electronic Communications Act provides for a market analysis procedure, definition of relevant markets, SMP designations and the imposition of remedies on designated operators based on the principles of the national Law on Competition and the EU 2003 regulatory framework. The new law requires the NRA to carry out market analysis procedures at least once every three years. Until the NRA has completed its market analyses under the new framework, the previous SMP designations and regulatory obligations will remain in force.
- 1.23 Between March 2 and April 20, 2009 the NRA consulted on its analysis of nine relevant markets. In identifying the nine markets relevant for ex ante regulation, the NRA followed

the seven markets of the 2007 European Commission recommendation and applied the three criteria test for additional markets. The consultation documents include analysis, SMP assessment and imposition or removal of regulatory obligations covering the following markets and SMP designations:

- wholesale call termination in public fixed networks – HT-Hrvatske Telekomunikacije (T-Com), Iskon Internet and seven alternative operators;
- wholesale broadband access – HT-Hrvatske Telekomunikacije (T-Com);
- wholesale call termination on individual mobile networks – T-Mobile Hrvatska, VIPnet, Tele2;
- wholesale SMS termination on individual mobile networks – none (three criteria test not met);
- wholesale infrastructure access at a fixed location - HT-Hrvatske Telekomunikacije (T-Com);
- wholesale call origination from public fixed networks - HT-Hrvatske Telekomunikacije (T-Com);
- public voice services in mobile networks – none (three criteria test not met);
- wholesale transit services in public fixed network – none (the three criteria test not met);
- wholesale access and call origination from public mobile networks – none (three criteria test not met).

1.24 According to HAKOM decision of July 9, 2008 on the markets relevant for ex ante regulation, two further markets will be analysed at a later stage covering access to public fixed telephony services at fixed location for residential and business customers as well as retail and wholesale leased lines.

## **6. Competitive safeguards**

1.25 The key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented:

- CS/CPS in fixed networks has been available since February 2005 for all types of calls: local, national, international and to mobile numbers;
- number portability has been available in fixed networks since July 2005 and in mobile networks since October 2006;
- RIOs have been published by fixed and mobile operators with SMP;

- RUO has been available since October 2005 and regulated wholesale bitstream access reference offer since December 2007.

1.26 Interconnection and LLU charges are approved by the NRA on the basis of benchmarking against the EU-27 average levels.

## **7. Universal service and consumer issues**

1.27 The NRA is the main body responsible for the implementation of the universal service and consumer issues, including the resolution of disputes between service providers and end users. It can designate one or more providers of universal service based on a public tender procedure. Alternatively, under the previous Telecommunications Act of 2003, a public voice telephony service provider with a market share greater than 80% could be required to provide universal service without a tender procedure. In November 2005 the NRA designated T-HT as the USO provider for a five-year period.

1.28 Article 36 of the new Electronic Communications Act provides for a designation mechanism of one or several universal service providers in line with the provisions of article 8 of the Universal Service Directive.

## **8. European Union**

1.29 In November 2008, the European Commission noted that significant progress had been made, in particular with the adoption of the new Electronic Communications Act, seen as a significant step towards completing alignment with the *acquis communautaire*<sup>3</sup>. However, progress required to be sustained in order to ensure the proper functioning of the electronic communications market.

1.30 The Commission noted the growth of broadband, including the increase in the number of unbundled loops, and also of the numbers ported on both fixed and mobile networks. Mobile operators still faced problems in obtaining construction permits and in site sharing, seen as potential roadblocks for future growth.

1.31 The regulator had enhanced its capacity, but lacked “sufficient transparency” in enforcing regulations to secure competitive safeguards for alternative operators.

1.32 On December 19, 2008 the accession negotiations with Croatia under chapter 10 of the *acquis* on Information Society and Media were provisionally closed.

## **9. Outlook**

1.33 Following the adoption of the Electronic Communications Act of 2008, based on the principles of the EU 2003 regulatory framework, most of the required implementing

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<sup>3</sup> Croatia 2008 Progress Report, SEC(2008) 2694.



legislation has been either adopted or is in the process of public consultation. The main priorities of the regulator remain carrying out the market analyses under the new framework and developing methodologies for regulatory cost accounting to ensure effective wholesale price control mechanisms for fixed and mobile networks.

## **The Former Yugoslav Republic of Macedonia (FYROM)**

### **1. Legal and institutional framework**

#### *Electronic Communications Law*

- 1.34 The primary legislation for the telecommunications sector is the Electronic Communications Law of March 5, 2005, which is based on the EU 2003 regulatory framework. It establishes the national regulatory authority and defines its responsibilities along with those of the government and the relevant ministry.

#### *Ministry of Transport and Communications*

- 1.35 The Ministry of Transport and Communications is responsible for policies and for drafting legislation for the electronic communications sector, as well as for preparing the national strategy for the development of electronic communications and information technology<sup>4</sup>.

#### *Agency for Electronic Communications*

- 1.36 The Agency for Electronic Communications (AEC) was established in July 2005 as an autonomous, independent national regulatory authority responsible for carrying out tasks defined under the Electronic Communications Law, including the adoption and administration of implementing legislation within its competencies, managing spectrum and numbering resources, carrying out analyses of the relevant electronic communications markets and imposing regulatory obligations on operators designated as having SMP.
- 1.37 AEC is governed by a Commission consisting of five members, including the President, who acts as a chairperson of meetings of the Commission. The President and the other members of the Commission are appointed and dismissed by the parliament. AEC's day-to-day activities are managed by a Director, engaged as a professional full-time employee. The Director is appointed by the Commission following a public competition procedure. The terms of office of the AEC Commission members and its Director are five years, with a possible reappointment for an additional consecutive five-year term.
- 1.38 AEC is a self-financed and non-profit legal entity with its budget funded from frequency and numbering fees, and administrative fees set as a percentage of the annual revenues of the authorised electronic communications operators and service providers.
- 1.39 Following amendments to the Electronic Communications Law that entered into force in August 2008, the appeal procedures for the NRA decisions have been modified. Decisions of the AEC Director are now final in the administrative procedure and no longer subject to appeal to the AEC Commission. According to the new procedures, appeals

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<sup>4</sup> <http://www.mtc.gov.mk/>

must be brought before Administrative Court within 30 days from the delivery of the decision. The entire appeal process is regulated by the Law on Administrative Disputes of May 19, 2006.

#### *Information society*

- 1.40 The Ministry of Information Society, established in 2006, is the government institution responsible for information society policy and coordination of the activities defined in the National Strategy for Information Society Development adopted in April 2005.
- 1.41 The Statistical Office is responsible for information society statistics. The Ministry of Finance is supervisory authority for electronic signature. The Ministry of Internal Affairs is responsible for network and information security. The Macedonian Academic Research Network operates as the national domain name registry.
- 1.42 FYROM has transposed the Electronic Commerce Directive, the Electronic Signatures Directive and the Cybercrime Convention.

### **2. Regulatory independence**

#### *Privatisation and operational independence*

- 1.43 The privatisation process of the incumbent operator, Makedonski Telekom, was launched in January 2000, when the Government agreed to sell 51% of the shares to Magyar Telekom, a major Hungarian telecommunication operator and part of the Deutsche Telekom Group. In 2006, further shares in Makedonski Telekom were sold to institutional investors. Currently, the Government controls a 34.81% stake plus one “golden share” in the incumbent operator. The state ownership and control functions are exercised by the Ministry of Finance.
- 1.44 The Electronic Communications Law stipulates that the members of the AEC Commission and its Director may not be shareholders in regulated entities or perform any other tasks that would result in a conflict of interests.

#### *Administrative independence*

- 1.45 Under the Law on Electronic Communications, AEC has been granted sufficient powers to perform its regulatory tasks. The government has no right to intervene in the adoption by the AEC of decisions on a discretionary basis. Its roles are limited to setting the amount of one-off fees for spectrum licences awarded in public tenders and the approval of the designation of a universal service provider selected by AEC in a public tender, though the agreement with the selected provider is concluded by AEC.

### **3. Market access and authorisations**

- 1.46 The country introduced full liberalisation of public fixed telephone networks and services in the second half of 2005.

- 1.47 The Law on Electronic Communications establishes a general authorisation regime where electronic communications networks and services can be provided without individual licences, subject to a general authorisation with a notification submitted to AEC before the start of activities. AEC is required to issue a written confirmation of the notification within 15 days of its receipt. Individual licences are issued by AEC for the right to use radio spectrum.
- 1.48 Although the general authorisation regime was introduced in 2005, it was only on July 24, 2008 that the Parliament enacted amendments<sup>5</sup> to the Law on Electronic Communications cancelling the concession contracts of Makedonski Telekom and of the two mobile operators, T-Mobile and Cosmofon. In September 2008 AEC confirmed to the operators their notifications for provision of electronic networks and services according to their cancelled concession contracts, and issued registrations and radio frequency authorisations.
- 1.49 Registered providers of public electronic communications networks and/or services pay an annual administrative fee to AEC. The maximum amount of the fee may not exceed 0.5% of the gross annual revenues derived from the provision of public communications networks and/or services during the previous calendar year.

#### **4. Market structure**

- 1.50 The incumbent operator Makedonski Telekom is the main provider of public fixed telephony networks and services. In addition to Makedonski Telekom, there are seven major alternative network operators currently active in the market. The main competitors are On.Net and Cosmofon, the mobile operator that recently became active also in the fixed telephony market; both are controlled by Telekom Slovenije.
- 1.51 There are three mobile operators in FYROM with their own networks: T-Mobile (Makedonski Telekom's mobile subsidiary), Cosmofon and VIP (owned by mobilkom Austria). T-Mobile and Cosmofon have been active in the market since 2001, while VIP launched its operations in 2007. T-Mobile and Cosmofon have been assigned 2G spectrum in the 900 MHz band, while VIP operates in both the 900 MHz and 1800 MHz. In 2008, 3G spectrum in the 2100 MHz was acquired in separate auction procedures by Cosmofon and by T-Mobile.
- 1.52 In January 2009, AEC launched auction procedures for one national broadband access licence in the 1800 MHz band and two national 3G licences in the 2100 MHz band. No final decisions have been adopted yet.

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<http://www.aec.mk/Portals/0/20080807/ZAKON%20ZA%20IZMENUVAWE%20I%20DOPOLNUVAWE%20NA%20ZAKON%20ZA%20ELEKTRONSKITE%20KOMUNIKACII.pdf>

- 1.53 On October 16, 2008 the Macedonian Commission for Protection of Competition approved the acquisition of the controlling stake in OTE by Deutsche Telekom subject to the condition that OTE would have to sell its Macedonian subsidiary, Cosmofon. The condition was imposed to prevent the distortion of the effective competition, because after the transaction Deutsche Telekom group would control the two largest mobile operators in Macedonia, T-Mobile and Cosmofon. On March 30, 2009 OTE agreed to sell Cosmofon to Telekom Slovenije for €190 million. The sale was approved by the Macedonian Commission for Protection of Competition in April 2009. The transaction consolidates the market position of the Slovenian incumbent who already controls the largest alternative fixed operator On.Net.

## **5. Significant market power**

- 1.54 The Electronic Communications Law provides for market analyses, definition of relevant markets, SMP designations and the imposition of remedies on SMP operators, based on the principles of the Law on Competition (as amended)<sup>6</sup> and the EU 2003 regulatory framework.
- 1.55 In August 2005, the AEC Commission adopted a Decision on the determination of relevant markets that sets out 18 product markets according to the EC Recommendation of 2003, all national in their geographic scope.
- 1.56 The Law requires AEC to carry out market analyses at least once every year, which has not been achieved in practice. So far, AEC has only completed its analysis of the wholesale call termination market for individual mobile networks, designating T-Mobile and Cosmofon as having SMP and imposing regulatory obligations in January 2008.
- 1.57 Until AEC has completed its market analyses, the transitional provisions of Article 146 of the Electronic Communications Law provide for the designation of Makedonski Telekom as having SMP in fixed voice telephone networks and services and data transmission and leased lines services. Makedonski Telekom is required to provide access to networks for data transmission and leased lines with the regulatory obligations of interconnection and access, CS/CPS, transparency, non-discrimination, publication of RIO, RUO and a reference offer for the minimum set of leased lines, accounting separation, price control and cost accounting obligations.

## **6. Competitive safeguards**

- 1.58 The following competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Macedonia:

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<sup>6</sup> <http://www.kzk.gov.mk/eng/law.asp>

- CS/CPS in fixed network has been available since January 2007 for national, international and calls to mobile numbers. In May 2008 AEC amended the RIO of Makedonski Telekom to enable CS/CPS for local calls.
- RIO of the fixed incumbent operator has been available since February 2006. First RIOs of the two mobile operators with SMP were submitted for approval to the AEC in April 2008. Following adoption of the new bylaw on interconnection in December 2008, RIOs were revised in February 2009.
- RUO has been available since May 2006 but so far there has been only one agreement on LLU between Makedonski Telekom and On.Net. Following adoption of the new bylaw on LLU in September 2008, revised RUO was approved by AEC in December 2008. One of the major changes is the possibility for alternative operators to offer „naked DSL”, i.e. broadband access without PSTN services offered over the same line.
- Wholesale line rental (WLR) was offered commercially since November 2008. The first regulated WLR offer was approved by AEC on March 16, 2009 in accordance with the new bylaw on WLR adopted in December 2008. WLR prices are regulated according to „retail-minus” methodology with the discount set in the range of 20-35%. The prices in the WLR offer approved by AEC in March 2009 are set at „retail minus 20%”.
- Wholesale bitstream access (BSA) with handover at IP-level and broadband resale had been offered commercially since 2007. The first regulated BSA and resale offers were presented for AEC approval in February 2009, following adoption of the new bylaw on wholesale bitstream access and resale in December 2008.
- Cost-oriented fixed interconnection and LLU charges based on forward-looking top-down LRIC methodology were approved in May 2008.
- Following adoption of a new bylaw on accounting separation in September 2008, Makedonski Telekom, T-Mobile and Cosmofon are required to submit to AEC their audited separate accounts prepared according to LRIC methodology by May 31, 2009.
- Number portability in fixed and mobile networks has been available since September 1, 2008. Recently the bylaw on number portability was amended to shorten the porting time from seven to two working days.

## **7. Universal service and consumer issues**

1.59 The scope of universal service includes the following elements:

- access to publicly available telephone services at a determined geographical location, making and receiving local, national and international telephone calls,

facsimile communications and data communications at a minimum speed of 2,400 bit/s;

- access to the single telephone directory and directory enquiry services;
- provision of public payphones;
- equivalent access to, and use of, publicly available telephone services for disabled end-users, including access to emergency calls services and information in single directory.

1.60 No universal service provider has been designated, although some of the elements have been provided by the incumbent operator within the scope of its concession agreement. AEC can designate one or more universal service providers based on a public tender. In January 2008, AEC launched a pre-qualification procedure for universal service providers. Two companies successfully passed the first phase but final selection phase has not been launched yet.

## 8. European Union

1.61 The European Commission noted significant progress, including enforcement measures that had created more competitive conditions for the benefit of consumers<sup>7</sup>. It found that the recent amendments to the Law of Electronic Communications have completed the alignment with the *acquis communautaire* with respect to appeal procedures and the authorisation regime, following the termination of the concession contracts.

1.62 Growing competition, with significant reductions in prices in the fixed and broadband markets, had been achieved by means of drastic reductions in interconnection rates, the introduction of number portability and the enforcement of obligations on SMP operators (e.g., interconnection offers, retail price control, cost accounting and accounting separation). While a third mobile operator had brought greater competition, the acquisition by Deutsche Telekom of OTE had increased its dominant position, requiring “corrective measures”. The emergency number 112 had yet to be introduced.

## 9. Outlook

1.63 The uncertainty concerning the appointment of the AEC Director was finally resolved in January 2009, when the AEC Commission appointed the new executive following a public tender procedure. Institutional capacity of the NRA remains one of the main issues with the planned recruitment of new staff during 2009.

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<sup>7</sup> The Former Yugoslav Republic of Macedonia 2008 Progress Report. SEC(2008) 2695.

- 1.64 Among other priorities of the AEC are market analyses, effective implementation of regulatory obligations, in particular regulatory cost accounting and wholesale price controls, as well as the implementation of the universal service framework.



## **Turkey**

### **1. Legal and institutional framework**

#### *Electronic Communications Law*

- 1.65 The new Electronic Communications Law (Law No. 5809)<sup>8</sup> initially vetoed by the President in August 2008 was finally accepted by the Parliament, approved by the President and published in the Official Gazette on November 10, 2008. The law brings important changes to the Turkish legal and institutional framework for electronic communications and is intended to improve the alignment with the EU regulations, in particular in the area of authorisations.
- 1.66 The new law came into force on the date of its publication, except for provisions on the general authorisation regime which enter into force on May 10, 2009.

#### *Ministry of Transport*

- 1.67 Ministry of Transport defines the state strategies and policies for the electronic communications sector aimed at promoting free competitive market, efficient use of scarce resources and development of electronic communications infrastructure and services in accordance with the objectives of public interest and national security.
- 1.68 According to the new Electronic Communications Law, the ministry is also responsible for promoting research, development and training activities for the needs of the electronic communications sector. The financing of such activities is foreseen through the transfer of funds from the national regulatory authority with an amount of up to 20% of its revenue.
- 1.69 Under the previous authorisation regime the ministry played an important role in defining tender procedures for concession agreements for provision of telecommunications services and infrastructures at the national level by a limited number of operators. Under the new law, the ministry remains responsible for determining the authorisation policy for the services that involve the use of spectrum resources and will be provided on the national scale by a limited number of operators. While determining the number of authorisations and their duration, as well as carrying out the tender procedures falls within the scope of the NRA competences, the law also reserves the right for the ministry to open tender procedures directly on its own to issue authorisations for services with the use of frequency resources on the national scale.
- 1.70 Under the Universal Service Law (No. 5369) of June 16, 2005, the ministry also remains responsible for the implementation of universal service and the management of the universal service fund.

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<sup>8</sup> [http://www.tk.gov.tr/Duzenlemeler/Hukuki/Kanunlar/2008/elektronik\\_haberlesme\\_kanunu.htm](http://www.tk.gov.tr/Duzenlemeler/Hukuki/Kanunlar/2008/elektronik_haberlesme_kanunu.htm)

*Information and Communications Technologies Authority*

- 1.71 The Electronic Communications Law changes the name of the national regulatory authority (formerly, Telecommunications Authority) to Information and Communication Technologies Authority (ICTA).
- 1.72 ICTA is an administratively and financially independent national regulatory authority, responsible for carrying out tasks defined under the Electronic Communications Law, including the adoption and administration of implementing legislation within its competencies, managing spectrum and numbering resources, carrying out analyses of the relevant electronic communications markets and imposing regulatory obligations on operators designated as having SMP, inspection and arbitration.
- 1.73 The decision-making body of ICTA is the Board, consisting of seven members, including a Chairman and a Vice Chairman. The Chairman is also responsible for the general management and representation of ICTA. Board members are appointed for a period of five years by the Council of Ministers, subject to the approval by the President of the Republic. They are nominated as follows:
- two by operators having at least 10% market share;
  - one by the Ministry of Industry and Trade;
  - one by the Union of Chambers of Commerce and Industry; and
  - three by the Ministry of Transport.
- 1.74 The Board members can only be dismissed before the completion of their term by the Council of Ministers because of their inability to work, due to serious illness, professional misconduct or criminal offences.
- 1.75 ICTA has independent sources of finance, including annual administrative charges, numbering and frequency fees, fines levied on operators and revenues obtained through consultancy and training. Any surplus at the end of the year is transferred to the Treasury. The accounts of ICTA are audited by the Supreme Audit Council of the Prime Minister, the Ministry of Finance and the Council of Inspectors of the Prime Minister.
- 1.76 Appeals against ICTA regulations and Board decisions can be brought before the Council of State, the highest administrative court in Turkey.

*Information society*

- 1.77 The State Planning Organization (SPO) of the Prime Ministry has a broad scope of responsibilities. It prepares the Council of Ministers' long-term development plans and annual programmes for all kinds of state planning including setting macroeconomic goals and alignment with the EU policies in general. Developing the Information Society Strategy (which is in its current version valid for the period from 2006 to 2010) is one of

the many planning tasks of the SPO. Such strategies are adopted by the High Planning Council composed of the Prime Minister, several other ministers and the Undersecretary of the SPO.

- 1.78 Other bodies with information society responsibilities are the Turkish Statistical Institute (information society statistics), TR-CERT (information security policy) and the National Research Institute of Electronics and Cryptology (UEKAE, monitoring threats to information security, including spam). ICTA is in charge of supervising electronic signatures. An organisational unit of the Middle East Technical University is the national domain name registry.
- 1.79 Turkey has transposed the Electronic Signatures Directive. It has not ratified the Cybercrime Convention, but the crimes listed in this convention are considered as criminal offences in the Turkish Criminal Code.

## **2. Regulatory independence**

### *Privatisation and operational independence*

- 1.80 The framework for privatisation of Türk Telekom was established in 2001, stipulating that one golden share would be retained by the government. On July 1, 2005, 55% of the shares in Türk Telekom were sold at auction to a consortium led by Oger Telecom. On December 10, 2007 the Cabinet of Ministers decided to privatise an additional 15% of Türk Telekom shares through an IPO. Since May 15, 2008 shares of Türk Telekom have been traded on the Istanbul Stock Exchange.
- 1.81 The state currently owns 30% of shares of Türk Telekom, in addition to its golden share. It also controls the Turkish satellite and cable TV operator Türksat, and remains an important shareholder in the mobile operator, Avea, which is 81.1% owned by Türk Telekom. The ownership and golden share functions are exercised by the Treasury, while the Ministry of Transport is responsible for operational activities, in particular of Türksat. Therefore, the separation of regulation from ownership and control functions has yet to be achieved.

### *Administrative independence*

- 1.82 The new law provides for a more clear division between the responsibilities of the Ministry of Transport as the policy making body and the regulatory tasks of the national regulatory authority, although there remains a certain overlap of functions regarding authorisation procedures.
- 1.83 ICTA administrative independence is stipulated by the new provisions of article 5 of the Law on Establishment of Information Technologies and Communications Authority (Law No. 2813) amended by the Electronic Communications Law: 'ICTA is independent in performing its tasks. Not any body, office, authority or person could direct or instruct the Authority.'

### **3. Market access and authorisations**

#### *Authorisations regime*

- 1.84 From May 10, 2009 the new Electronic Communications Law introduces a general authorisation regime with a notification to ICTA. This replaces the previous complex regime consisting of authorisation agreements, concession agreements and individual licences issued for every specific service category, with the only exception of Internet services and some categories of value-added services that already now could have been provided subject to a general authorisation regime.
- 1.85 Individual rights of use will be issued only for the use of scarce resources, such as frequencies and numbers. Where the number of rights of use is not limited, the rights of use are issued by ICTA within 30 days from the application. Authorisations for the services where the number of rights of use is limited, such as frequency bands or satellite positions, will be issued based on a public tender procedure.
- 1.86 Operators who were authorised under the previous regime through an individual licence or a general authorisation will be regarded as having been notified to ICTA and assigned the rights of use when required. On the other hand, authorisation and concession agreements signed before the entry into force of the new law will remain in force until their termination due to expiry (i.e., up to 2029), annulment or cancellation for any other reason. The law does not contain any explicit requirement to bring them in line with the new authorisations regime within a short transitional period.

#### *Market access*

- 1.87 The provision of domestic long-distance and international telecommunications networks and services was liberalised from January 1, 2004, and the liberalisation of local services was formally introduced in July 2005. However, no licences have been issued so far to alternative operators for the provision of local telecommunications networks and services and Türk Telekom remains the only authorised provider.
- 1.88 In August 2007, the NRA had introduced an authorisation framework for fixed telecommunications services which covered the provision of voice telephony, data, payphones and value added services at the local level over the fixed network. This was seen as an important measure that would enable new entrants to enter the market for local voice telephony services. The regulator's decision was however overruled by the Council of State on the grounds that under this decision a single licence would enable the provision of more than one telecommunications service (i.e., voice and Internet).
- 1.89 On November 20, 2008 a new bylaw on telecommunications services and infrastructure setting out the authorisation regime for the provision of fixed telephony networks and services was published in the Official Gazette, after it had been revised in line with the objections raised by the Council of State. After the determination of minimal value of authorisation fees by the Council of Ministers, licences will be issued to alternative operators who would be able to offer local call services in competition with Türk Telekom.

It seems that this new licensing regulation was not applied in practice before the general authorisation regime entered in force on May 10, 2009.

#### **4. Market structure**

- 1.90 The incumbent operator Türk Telekom remains the only authorised provider of public fixed telephony services with own network infrastructure. Competition has only emerged at the service level with alternative providers offering national long distance and international call services by means of CS/CPS and VoIP. The provision of Internet services is dominated by the incumbent's subsidiary TT Net providing over 90% of all fixed Internet connections. The competitors had been mainly using the wholesale broadband resale offer from Türk Telekom, and only recently most of them have migrated their customers to wholesale bitstream access offer with handover at IP-level following a campaign launched by the incumbent in late 2008.
- 1.91 There are three mobile operators in Turkey with their own network infrastructure: Avea (Türk Telekom's mobile subsidiary), Turkcell (37% owned by TeliaSonera) and Vodafone (owned by Vodafone group). Turkcell and Vodafone, both active on the market since 1998, have been assigned spectrum in the 900 MHz band, while Avea that was licensed in 2001 operates in the 1800 MHz band. On November 28, 2008 the regulator completed the auction procedure for four 3G UMTS licences in the 2100 MHz band, where Turkcell won the spectrum assignment for 40 MHz, Vodafone for 35 MHz and Avea for 30 MHz. The fourth licence for 25 MHz spectrum remained unassigned, as no bids were submitted. The three UMTS licences were officially awarded on April 30, 2009.

#### **5. Significant market power**

- 1.92 Although the previous legislation was largely based on the EU 1998 framework, the NRA decided in its 2005 work program to adopt the definitions of the 18 relevant markets according to the European Commission Recommendation of 2003 and conduct market analyses as foreseen under the EU 2003 framework. Market definitions and SMP designations were set out in the document published by the NRA in March 2005.
- In December 2005, the NRA completed its analysis of the wholesale markets for mobile access and call origination and for voice call termination on individual mobile networks, corresponding to markets 15/2003 and 16/2003, respectively. All three MNOs, Turkcell, Vodafone and Avea were designated as having SMP in the mobile call termination, with Turkcell also as having SMP in the mobile access and call origination.
  - In March 2006, the NRA completed its analysis of the fixed markets, both wholesale and retail, corresponding to markets 2003/1-14, and designated Türk Telekom as having SMP in those markets.
- 1.93 The NRA, however, had little discretion in imposing regulatory obligations, with most remedies predefined by law and triggered automatically by SMP designation.

- 1.94 The new Electronic Communications Law foresees that market analysis procedures are to be carried out by ICTA in accordance with the EU 2003 regulatory framework. The law, however, contains no provisions on market analysis procedures, methods for identification of relevant markets, SMP designation and imposition of regulatory obligations. These aspects are to be addressed in the secondary legislation that is currently being drafted or revised by ICTA.
- 1.95 ICTA has decided to delay the new market analyses procedures until the secondary legislation required under the new law has been adopted. The regulatory obligations imposed on the operators with SMP will remain in force until new market analyses have been completed.

## **6. Competitive safeguards**

- 1.96 The following competitive safeguards have been implemented:
- CS/CPS on fixed network has been available since 2006 for long-distance and international calls, as well as for call to mobile numbers; it is not yet available for local calls.
  - RIOs have been published by Türk Telekom and by the mobile operators with SMP.
  - RUO has been available since November 2006 and a regulated reference offer for wholesale bitstream access and resale since August 2007. Initially wholesale bitstream access was available only at IP-level, but in December 2008 ICTA approved the first reference offer for bitstream access at ATM level that will be valid from June 30, 2009.
  - Number portability was implemented in November 2008 in mobile networks with over 1.2 million numbers ported within first four months from its introduction. Number portability in fixed network must be implemented by May 2009.

## **7. Universal service and consumer issues**

- 1.97 Under the Universal Service Law (No. 5369) of June 16, 2005, the scope of universal service covers fixed telephone services, public payphones, printed or electronic directory services, emergency call services, basic internet services, passenger transport services to places that can be reached only through sea transport, and maritime emergency and security communications services.
- 1.98 In 2006, this list was extended by the Council of Ministers to include two further elements:
- services oriented to spread information technologies, including computer literacy, to help the development of information society (February 2006), and

- digital broadcasting services utilising various broadcast media and technology via digital terrestrial transmitters and covering the entire settlements countrywide (April 2006).
- 1.99 The Universal Service Law envisages a tender procedure for the designation of universal service providers that has not yet been implemented. In June 2006 the Ministry of Transport issued the Ordinance on Principles and Procedures for the Collection of Universal Service Revenues and Execution of
- 1.100 Expenditures that also clarifies the USO provider designation mechanism. First, the ministry determines the relevant elements of the universal services and the specific locations where these services are to be provided. Then the providers of the universal services are designated on the basis of a tender procedure. In rural regions, where the cost of service provision is high, the ministry is also authorised to impose temporary obligations on providers that have more than 70% market share in a given geographic market.
- 1.101 As universal service legislation has not been applied in practice, universal service is currently provided by Türk Telekom in accordance with requirements set out in its concession agreement. At the same time, contributions to the universal service fund are collected from several sources:
- 2% of the authorisation fees collected by the NRA;
  - 1% of net sales revenues of all operators, except for GSM operators;
  - 10% of payments by GSM operators to the Treasury;
  - 20% of administrative fines collected by the NRA;
  - 20% of what remains in the NRA budget after all expenditures have been deducted.
- 1.102 These can be increased by up to 20% by the Council of Ministers. The revenues are collected by the Treasury and allocated to the budget of the Ministry of Transport, although no payments have been made to operators.

## 8. European Union

- 1.103 Alignment with the *acquis communautaire* remained “limited”, requiring the adoption of further legislation<sup>9</sup>. The European Commission in particular commented on the long-drawn adoption process of the new Electronic Communications Law, which was initially

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<sup>9</sup> Turkey 2008 Progress Report. SEC(2008) 2699.

vetoed by the President in August 2008, before its final adoption and entry into force in November 2008.

- 1.104 The Commission noted some progress concerning competitive safeguards imposed on dominant operators. However, despite strong growth in mobile and fixed, competition was described as “marginal”, for example, with more than 95% of broadband Internet access being provided by the incumbent.
- 1.105 New regulations on access and interconnection for SMP operators had been adopted, including the provision of RIOs. While there was a RUO for the incumbent, there had been only “limited progress” towards equitable and transparent conditions for fixed wholesale broadband access. Implementation of number portability was also well under way. However, according to the Commission, “no progress” had been made on accounting separation and cost accounting of the fixed incumbent.
- 1.106 High taxation on communication services, unrelated to the administrative costs of regulating the sector, was seen as a “problem”. The scope and implementation of universal service obligations were incompatible with the *acquis communautaire*. Liberalisation of local telephony had not been implemented, undermining competition in the fixed and broadband markets.
- 1.107 While the regulator was well staffed and self-financed, it lacked independence, in particular in the authorisation process. Its decision-making processes were not seen as transparent.
- 1.108 New regulations on the provision of Internet services at public places and on the principles and procedures concerning the regulation of broadcasts on the Internet had been adopted. Implementation of these had the “potential to violate freedom of expression”.

## **9. Outlook**

- 1.109 Following the adoption of the Electronic Communications Law, one of the key priorities of the NRA is adoption of the necessary secondary legislation, which would ensure a sound legal basis for application of the principles of the EU 2003 regulatory framework.
- 1.110 Other aspects include the authorisation regime, in particular the authorisation of alternative local telephone networks and services, the problem of high communications taxes imposed on operators which are detrimental to market entry, the implementation of universal service in compliance with the EU framework and the effective independence of the regulatory authority.



## **Albania**

### **1. Legal and institutional framework**

#### *Law on Electronic Communications*

- 1.111 The Law on Electronic Communications (Law No. 9918 of May 19, 2008) that entered in force on June 26, 2008 is the principal legal instrument for the regulations of the electronic communications sector and defines the institutional framework, including the responsibilities of the government, the relevant ministry and the national regulatory authority. It replaced the previous Law on Telecommunications (Law No. 8618 of June 14, 2000) and is intended to bring Albanian law into line with the EU 2003 regulatory framework for electronic communications.

#### *Ministry of Public Works, Transport and Telecommunications*

- 1.112 The Ministry of Public Works, Transport and Telecommunications is the central state administration body competent for electronic communications and postal services<sup>10</sup>. The Directorate of Post and Telecommunications carries out the day-to-day work.
- 1.113 The ministry is responsible for drafting policies for electronic communications sector subject to approval by the Council of Ministers, drafting relevant primary and secondary legislation and preparing the National Radio Frequency Plan. It also approves tender procedures for frequency assignment and the designation of universal service providers, based on proposals by the regulator.
- 1.114 In April 2009, the ministry presented to the Council of Ministers for approval the new National Radio Frequency Plan developed in accordance with the European Common Allocation table. The plan was approved by the Council of Ministers on May 6, 2009. With EBRD assistance the ministry has recently prepared a draft policy on electronic communications for the period from 2009 to 2014. After a public consultation the policy will be submitted to the Council of Ministers.

#### *Authority of Electronic and Postal Communications*

- 1.115 The Law on Electronic Communications established the Authority of Electronic and Postal Communications (AKEP) as the new regulatory authority that took over the tasks and responsibilities of the previous regulator, the Telecommunications Regulatory Entity (TRE)<sup>11</sup>. AKEP is a public, independent, non-budgetary legal entity responsible for carrying out regulatory tasks defined by the Law on Electronic Communications, including adoption and administration of implementing legislation within its competencies.

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<sup>10</sup> <http://www.mpptt.gov.al>

<sup>11</sup> <http://www.ert.gov.al>

- 1.116 AKEP is managed by a Governing Council composed of five members appointed for a five year office term, by the Assembly of the Republic of Albania, on the proposal of the Council of Ministers, with the right of reappointment for one further term. The Assembly designates one of the members of the Governing Council as the Chairman, who also acts as the Executive Director of AKEP.
- 1.117 AKEP is a self-financed entity funded from the annual market supervision fees paid by operators and service providers. It is required at the beginning of each financial year to present its forecast budget for approval by the Council of Ministers. Any surplus of revenues over is at the end of the year is transferred to the state budget.
- 1.118 AKEP is accountable for its activities before the Assembly. At the end of each year, AKEP is required to submit to the Assembly an annual report on its activities.
- 1.119 In appeal procedures, AKEP decisions could be initially submitted as an administrative appeal for the review by the Governing Council. In this case there is a suspension of one month provided for under the Code of Administrative Procedures. Within this month the administrative appeal has to be considered and a final decision taken by AKEP. As the next step, the appeal can be brought before the Tirana District Court (the Court of First Instance).

#### *Information society*

- 1.120 The National Agency on Information Society (NAIS)<sup>12</sup> was established by a decision of the Council of Ministers in April 2007 and became operational in September 2007. Its overall objective is to coordinate the government's activities in the field of information society and communication technologies. In particular, NAIS is responsible for proposing the national strategy on the information society, drafting information society legislation, coordinating ICT projects of the government, standardising technical requirements for governmental IT equipment and providing technical assistance to other government bodies. On January 21, 2009 the Council of Ministers approved the new national strategy on information society.
- 1.121 The Institute of Statistics (INSTAT) is responsible for information society statistics, but such statistics are not yet available. A national authority on electronic signature has recently been established under the Ministry of the Interior. Albania has not designated a body responsible for network and information security in general. AKEP is also the national domain name registry.
- 1.122 Albania has transposed the Electronic Signatures Directive and the Cybercrime Convention. On May 11, 2009 the Parliament adopted a law transposing the Electronic Commerce Directive.

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<sup>12</sup> <http://www.akshi.gov.al>

## **2. Regulatory independence**

### *Privatisation and operational independence*

- 1.123 On June 19, 2007, after a two-year period of negotiations over the privatisation of Albtelecom, the incumbent operator, Calik Enerji and the Albanian Ministry of Economy, Trade and Energy, signed an agreement for the sale of a 76% stake to a joint venture of Calik Enerji and Türk Telekom. The deal also included Eagle Mobile, the third mobile operator. The privatisation agreement was ratified by the Albanian Parliament on July 19, 2007. Currently, the state retains 24% of shares in Albtelecom and Eagle Mobile. The ownership functions are exercised by the Ministry of Economy, Trade and Energy.
- 1.124 Albanian Mobile Communications (AMC), a major mobile operator, was privatised in 2000 through the sale of 85% shares to Cosmote, a mobile subsidiary of the Greek incumbent operator. In February 2009, the government agreed to sell the rest of its stake in AMC to Cosmote, who following the transaction will control, directly and indirectly, 95% of AMC<sup>13</sup>.<sup>110</sup>

### *Administrative independence*

- 1.125 The Law on Electronic Communications substantially extends the powers of AKEP to issue secondary legislation and perform its regulatory functions without any intervention by the ministry or by the government. In particular, AKEP is authorised to set out administrative fees, to impose price control obligations (along with other regulatory obligations) on operators with SMP and set out methodologies for regulation of tariffs without any requirement for the ministry approval.
- 1.126 The administrative independence of AKEP is undermined by legal provisions restricting its ability to decide independently on its organisation structure and the salary levels. As with the previous Law on Telecommunications, the new Law on Electronic Communications maintains the requirement for AKEP organisational structure and salary levels to be approved by the Assembly on the proposal of the Council of Ministers. So far, however, all proposals submitted by AKEP have been approved by the Council of Ministers. For example, in November 2008, the Council of Ministers approved AKEP's proposal regarding the salaries of its Council members.
- 1.127 Another factor undermining NRA independence is the record of repeated dismissals of its Council members. The grounds for these actions had not always been stated in a clear and transparent manner, giving rise to concerns that they may have been politically motivated.

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[http://www.cosmote.gr/cosmote/cosmote.portal?locale=en\\_US&\\_nfpb=true&\\_pageLabel=press\\_releases&path=%2FSCSDDevRepository%2Fcontent%2Fen%2Fsections%2Fpressoffice%2Fpressrelease%2F240409eng.xml&breadcrumbTitle=Announcement](http://www.cosmote.gr/cosmote/cosmote.portal?locale=en_US&_nfpb=true&_pageLabel=press_releases&path=%2FSCSDDevRepository%2Fcontent%2Fen%2Fsections%2Fpressoffice%2Fpressrelease%2F240409eng.xml&breadcrumbTitle=Announcement)

- 1.128 The current Council, which is in office since March 2008, has been hampered by conflicts between Council members. Some of the decisions adopted by a majority of the Council members were obstructed by staff under the control of the Executive Director. In March 2009 these conflicts escalated and brought
- 1.129 the decision-making process at the Council level to a complete standstill. As the law defines most regulatory topics as a competence of the Council, the ongoing problem hinders AKEP from fulfilling its regulatory tasks.

### **3. Market access and authorisations**

- 1.130 The liberalisation of fixed electronic communications networks and services was introduced gradually: starting with rural local networks in 1998, then domestic long-distance networks in July 2003 and international networks in January 2005. Amendments to the Law on Telecommunications adopted in November 2006 introduced a new concept of regional licences for rural, urban, and domestic long distance networks and effectively opened urban local networks for competition. The relevant implementing legislation was approved by the regulator only in April 2007.
- 1.131 Before the entry into force of the new Law on Electronic Communications came into force in June 2008, no effective competition has emerged in the provision of international interconnection connectivity.
- 1.132 The Law on Electronic Communications introduced a general authorisation regime where electronic communications networks and services that do not require the use of limited resources can be provided without individual licences. These services can now be provided subject to a notification submitted to AKEP who must complete the registration within 15 days. AKEP adopted secondary legislation on the notification procedure in September 2008. Individual authorisations are issued by AKEP for the right to use radio spectrum and numbers.
- 1.133 In December 2008, at the end of a six months transition period, AKEP harmonised all existing licences with the authorisation framework of the new law. All operators that were previously issued regional licences may freely extend the provision of their services over the entire territory of the Republic of Albania both by extending the geographic coverage of their networks and by interconnecting with other networks.

### **4. Market structure**

- 1.134 The incumbent operator Albtelecom remains the dominant player in the provision of fixed telephony services. In the provision of international services, its market share by minutes of traffic is currently 96%, while in the provision of national services, where it faces some competition from the regional operators its market share is about 72%. In the provision of Internet services, several regional competitors have emerged offering broadband services over own fibre, cable and wireless networks, mainly in the major cities.

- 1.135 There are three mobile operators in Albania with own their network infrastructure: AMC, Vodafone and Eagle Mobile, all licensed to operate 2G mobile services in the 900 MHz and 1800 MHz bands. AMC has been operational since 1996, Vodafone since 2001, while Eagle Mobile licensed in 2004 launched its commercial services in March 2008 following its privatisation in 2007.
- 1.136 In February 2009, AKEP held a tender procedure to award the forth 2G mobile spectrum licence in the 900 MHz and 1800 MHz bands. Two undertakings participated in the tender: a consortium led by Post and Telecom of Kosovo (PTK) with the bid of €7.2 million and Universal PG with the bid of €5 million. In April 23, 2009 the Albanian parliament through Law No. 10118 of April, 2009 awarded the licence to the PTK consortium. The spectrum licence is valid for 15 years.
- 1.137 No decision on the award of 3G licences in the UMTS band has been taken yet.

## **5. Significant market power**

- 1.138 Under the Law on Telecommunications of 2000, the NRA had discretion to define relevant markets applying competition law principles. The designation of SMP was on the basis of the static 25% market share threshold, sometimes combined with assessment of other criteria. Basic remedies applicable to all operators with SMP were specified by the Law on Telecommunications, while some further discretionary remedies were specified in the TRE Regulation on Access and Interconnection of December 7, 2007.
- 1.139 In November 2007 the regulator designated the mobile operators, AMC and Vodafone, as having SMP in the markets for wholesale call termination on individual mobile networks and retail public mobile services, imposing the regulatory obligations of access and interconnection, non-discrimination, transparency including the requirement to publish a RIO, price control, accounting separation and cost accounting.
- 1.140 On November 13, 2007 the regulator designated Albtelecom as having SMP in six markets, covering retail access and publicly available phone calls at a fixed location, wholesale call termination on geographic numbers on the Albtelecom fixed network, wholesale call origination on the public fixed telephone network, national transit services in the public fixed telephone network and international transit services in the public telephone network. The scope of regulatory obligations includes: CS/CPS, access and interconnection, non-discrimination, transparency (including the requirement to publish a RIO), price control, accounting separation and cost accounting.
- 1.141 The new law provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the principles of the Law No. 9121 on the Protection of Competition and the EU 2003 regulatory

framework<sup>14,111</sup> It also requires AKEP to carry out market analyses at least once every two years. Until the NRA has completed its first round of market analyses under the new framework, the previous SMP designations and regulatory obligations remain in force. AKEP plans to undertake its market analyses in 2009 after adopting the new regulation on market analysis and SMP designation.

## **6. Competitive safeguards**

1.142 Implementation of the key competitive safeguards has started in Albania only recently.

- The first RIOs of Albtelecom, AMC and Vodafone were submitted to the NRA for approval in March 2008. Following several revisions, RIOs were finally approved and published on February 18, 2009.
- The price control regulations of retail and wholesale tariffs of the three operators with SMP, Albtelecom, AMC and Vodafone, were approved by the Council of Ministers on June 18, 2008 (as part of its competencies under the previous law). The new tariffs were approved by AKEP on August 28, 2008. Retail price controls for both fixed and mobile services are price cap methodologies that apply from September 1, 2008 until August 31, 2010.
- The main objective of the tariff regulation for Albtelecom retail services is tariff rebalancing of fixed tariffs. As a result of the regulation implemented on September 15, 2008, tariffs for residential customers changed as follows:
  - 20% increase in the monthly rental fee;
  - 12% increase in local calls tariffs;
  - 17-57% reduction in national calls (to fixed networks) tariffs;
  - 13-24% reduction in tariffs for calls to mobiles;
  - Up to 63% reduction for international calls.

1.143 For business customers, monthly rental and retail calls tariffs were increased, while the tariffs for national and international calls were reduced by up to 63%.

- The NRA adopted a Regulation on Access and Interconnection in December 2007 that includes the rules for publication and content of RUO, but there is no obligation yet for Albtelecom to provide LLU or to publish its RUO.

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<sup>14</sup> <http://go.worldbank.org/BKB2R8ZAT0>

- CS/CPS was imposed as an SMP obligation on Albtelecom but no decision on its implementation has been taken.
- No decision on implementation of number portability has been adopted so far. The new law provides that it should be implemented within 12 months, i.e. by June 2009.

## **7. Universal service and consumer issues**

1.144 Under the Law on Electronic Communications, AKEP can designate one or more universal service providers based on a public tender procedure, subject to the Ministry approval. The scope of universal service includes the following elements:

- access to the telephone service available to the public from a defined geographic location, enabling the user to make and receive local, national and international calls, facsimile communications and data communication at a minimum speed of 32 kbps;
- telephone directory;
- public payphones; and
- equivalent access to and use of telephone service made available to disabled end-users, including access to emergency calls services and information in telephone directory.

1.145 No decision on the designation of the universal service providers has been taken so far.

## **8. European Union**

1.146 The European Commission noted only “some” progress, including new primary legislation in line with the *acquis communautaire*<sup>15</sup>. However, an electronic communications strategy, related policy documents and secondary legislation had yet to be adopted. Market liberalisation and competition were “still at an early stage”.

1.147 There was a lack of competitive safeguards such as tariff rebalancing, RIO, CS/CPS and RUO. The legislation allowing operators to apply for urban and regional licences in addition to the rural and national licences had not increased competition.

1.148 There was “insufficient administrative capacity” in the ministry and in the regulator, while the latter also needed to develop the “necessary expertise” to implement and to enforce the new legislation.

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<sup>15</sup> Albania 2008 Progress Report. SEC(2008) 2692

## **9. Outlook**

- 1.149 Among the outstanding issues is the full implementation of the Law on Electronic Communications and adoption of the required secondary legislation under the new law. Competitive safeguards, such as number portability, CS/CPS, local loop unbundling and cost accounting models for the introduction of cost-based tariffs remain to be introduced. AKEP needs to strengthen and deepen its expertise. Available spectrum needs to be assigned to operators and the legislation must be aligned closer with the EU framework.



## **Bosnia and Herzegovina**

### **1. Legal and Institutional framework**

#### *Law on Communications*

- 1.150 The Law on Communications of October 21, 2002 defines the institutional framework in respect of the policy making and the regulation of the electronic communications sector. Within the scope of the law are included telecommunications, radio and TV broadcasting, cable television, and associated services and facilities.

#### *Council of Ministers and Ministry of Communications and Transport*

- 1.151 The Council of Ministers is responsible for adopting policies for communications. The Ministry of Communications and Transport drafts policies and prepares primary and secondary legislation. Under the Law on Communications, the Council of Ministers is also responsible for defining the scope of the universal service, designating the providers and establishing the funding mechanism, based on proposals of the NRA.
- 1.152 Telecommunications Sector Policy adopted by the Council of Ministers is the main policy document that sets out the priorities for telecommunications services and infrastructure development, defines specific regulatory objectives and an action plan for their implementation by the Ministry of Communications and Transport and the NRA. Following the expiry of the previous sector policy in December 2007, adoption of the new policy by the Council of Ministers was delayed by over a year. This resulted in a regulatory vacuum during 2008, as no important decision were taken, addressing for example, 3G licences, number portability, LLU implementation.
- 1.153 The new Telecommunications Sector Policy for the period from 2008 to 2012 was finally approved by the Council of Ministers on December 18, 2008<sup>16</sup>.

#### *Communications Regulatory Agency*

- 1.154 The Law on Communications establishes the Communications Regulatory Agency (RAK) as a functionally independent and non-profit institution, responsible for regulating broadcasting and public telecommunications networks and services. Its responsibilities include licensing, tariffs, interconnection issues and conditions for the provision of common national and international communications facilities; planning, co-ordinating, allocating and assigning the radio frequency spectrum; management of the numbering plan and assignment of numbering resources to telecommunications operators.
- 1.155 Strategic and policy implementation issues are decided by RAK Council. It consists of seven members nominated by the Council of Ministers and appointed by the Parliament.

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<sup>16</sup> <http://www.rak.ba/bs/telecom/sector-policy/?cid=2387>

RAK Council adopts codes of practice and rules for broadcasting and telecommunications, as well as its own internal rules.

- 1.156 RAK is headed by a Director General, who is proposed by RAK Council and approved by the Council of Ministers. He is responsible for all regulatory and administrative functions of RAK and manages its day-to-day operations, including implementation of relevant laws and policies, technical oversight, industry affairs and staffing.
- 1.157 The Parliament has the sole authority to dismiss the members of RAK Council before completion of their mandate. Similarly, the Council of Ministers has the sole authority to dismiss the Director General before completion of his or her term. Both, members of RAK Council and the Director General have terms of four years and can be re-appointed only once.
- 1.158 Appeals against decisions made by the Director General can be submitted to RAK Council who acts according to the Law on Administrative Procedures making a full review of the decision. Pending the outcome of the appeal, the effect of the decision is not suspended. Decisions of RAK Council are final in the administrative procedure. Legal review of the decision can be brought before the State Court.
- 1.159 RAK has its own independent budget financed through fees for authorisations, numbering and spectrum.

#### *Information society*

- 1.160 The Ministry of Communications and Transport is in charge of information society policy. According to strategic documents (Policy for Development of the Information Society, Strategy for Development of the Information Society and Action Plan for Development of the Information Society), an Agency for Development of the Information Society of Bosnia & Herzegovina (ARID) shall be established. A draft law has been prepared, but not adopted by parliament. If established, ARID would also become responsible for information society statistics.
- 1.161 Bosnia & Herzegovina has neither designated a body responsible for network and information security nor established a supervisory body for electronic signatures. The University Teleinformatic Centre is the national domain name registry.
- 1.162 Bosnia & Herzegovina has transposed the Electronic Commerce Directive and the Electronic Signatures Directive. It has also ratified the Cybercrime Convention, but still needs to amend its Criminal Code accordingly.

## **2. Regulatory independence**

#### *Privatisation and operational independence*

- 1.163 There are three incumbent operators, one in each of the three territories. The Federation government of Bosnia & Herzegovina retains 90% ownership in BH Telecom (Sarajevo)

and 50.10% in Hrvatske Telekomunikacije – HT (Mostar), with the ownership functions performed by the Federal Ministry of Transport and Communications. The third incumbent operator, Telekom Srpske in the Republika Srpska is now fully privatised. In December 2006, the Serbian incumbent operator, Telekom Srbija, won the tender for the privatisation of 65% of Telekom Srpske with a bid of €646 million. The privatisation was finished in July 2007, after the Competition Council approved the transaction in April 2007. Twenty percent of the remaining shares are traded on the national stock exchange, 10% is held by a pension fund and 5% by a restitution fund.

#### *Administrative independence*

- 1.164 The Law on Communications provides for substantial administrative and financial independence of RAK. In particular, it ensures that neither the Council of Ministers, nor any individual minister may in any way interfere in the decision-making of the Agency in individual cases.
- 1.165 Under the Law on Communications RAK Council was also authorised to decide on the salary structure for its staff, including grades and any bonuses. The new Law on Salaries and Allowances for Civil Servants adopted on June 23, 2008, may hinder RAK's independence and administrative capacity by bringing the salary levels of its employees within the pay scales for civil servants. Under this law RAK must follow the established scales for the basic salary levels and will only be able to increase salaries of its employees through an additional "regulatory" bonus scheme.
- 1.166 A further factor that undermines the independence of RAK is the present uncertainty over the Director General, which complicates and slows down decision-making processes at RAK. After the mandate of the Director General had expired in 2007, RAK Council proposed to re-appoint him for another term. On September 27, 2007 the Council of Ministers rejected this proposal and requested RAK to repeat the selection procedure for the appointment of the new Director General. No new procedure has been initiated so far, and the Director General retains his position without the formal approval of the Council of Ministers.

### **3. Market access and authorisations**

- 1.167 The liberalisation of the telecommunications sector was completed on January 1, 2006 with the opening for competition of international voice telephone services. According to the present licensing framework, the provision of fixed voice telephone networks and services is subject to an individual licence, while the provision of Internet services is subject to a general (class) licence.
- 1.168 The one-off administrative charges for fixed and mobile telephony networks and services are BAM 1,000 (€111) and BAM 500 (€255) for Internet services. The annual fees depend on the scope of provided services: BAM 500,000 (€255,600) for public fixed telephone services with own network infrastructure; BAM 70,000 (€35,800) for public fixed telephone services without own networks; BAM 5,000 (€2,500), BAM 10,000 (€5,000) and BAM 50,000 (€25,000) for operators of local, regional and national networks,

respectively. The annual fee paid by 2G mobile network operators is BAM 600,000 (€307,000), while ISPs pay BAM 4,000 (€2,100) a year.

- 1.169 On March 27, 2009 RAK published for consultation draft proposals to reduce annual fees from BAM 500,000 to BAM 450,000 for public fixed telephone services with own network infrastructure; from BAM 70,000 to BAM 55,000 for public fixed telephone services without own networks; and from BAM 600,000 to BAM 550,000 for 2G mobile network operators.

#### **4. Market structure**

- 1.170 The specific aspect of Bosnia & Herzegovina is the existence of three regional incumbent operators on each of the three ethnic territories: BH Telecom based in Sarajevo, Telekom Srpske in Banja Luka and Hrvatske Telekomunikacije in Mostar. Each of the three incumbent operators operates its own public fixed telephony network.
- 1.171 The incumbents retain the dominant position in the provision of public fixed telephony services with combined market share close to 99%. Few new entrants have become operational since liberalisation of the sector:
- 10 alternative providers currently offer public fixed telephony services over the incumbents' network infrastructure based on CS or VoIP.
  - No new licences for provision of fixed telephony services with own network have been granted.
- 1.172 There are three 2G mobile networks in Bosnia & Herzegovina that are also operated by the three incumbent operators. All of them are licensed to operate in both the 900 MHz and 1800 MHz bands. On March 26, 2009 RAK issued three 3G/UMTS licences, with 15 years validity period, to the three existing mobile operators without any tender procedure. Each will pay €15 million over seven years for the 3G licence, after a two-year grace period.

#### **5. Significant market power**

- 1.173 The undertakings with SMP are designated by RAK on the basis of the static 25% market share threshold. Basic remedies for operators with SMP, such as access, interconnection and non-discrimination, are set out in the Law on Communications, but RAK has discretionary powers to decide on a further set of specific regulatory obligations.
- 1.174 On September 27, 2007 RAK designated the three incumbent operators, BH Telecom, Telekom Srpske and HT Mostar as having SMP in public fixed telephone networks and services and in public mobile telephony services. The scope of regulatory obligations includes: non-discrimination, cost orientation, transparency, access and interconnection, price control, RIO, and for fixed networks, provision of CS/CPS.

## **6. Competitive safeguards**

1.175 The following key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Bosnia & Herzegovina.

- CS/CPS was introduced in July 2007 but remains at an early stage with only four alternative operators providing CS services.
- RIOs for the three fixed incumbent operators have been available since November 2005.
- RUOs are expected to be published before the end of 2009, RAK regulations on LLU adopted in 2008.
- Number portability in fixed and mobile networks is expected to be implemented before the end of 2009.
- The new Telecommunications Sector Policy foresees adoption of the necessary authorisation framework and amendment of RIOs of the mobile operators to enable market entry for MVNOs.

## **7. Universal service and consumer issues**

1.176 The Law on Communications states that the Council of Ministers shall define the scope of universal service, the funding mechanism and the designation of the universal service providers, which has not yet been decided.

1.177 Currently, the requirement to offer the minimum scope of universal services is included in the licences of the three incumbent operators. This covers provision of the following services: connections to the public fixed telephone network at a fixed location and access to public fixed telephone services at affordable prices, allowing users to make and receive national and international calls, supporting speech, facsimile and/or data communications; provision of directories and directory enquiry services; public pay phones; free access to emergency services.

1.178 A draft regulation on a more comprehensive universal service framework has been submitted by the NRA for approval by the Council of Ministers.

## **8. European Union**

- 1.179 According to the European Commission, progress was held to be “limited” with few new entrants having become operational since liberalisation of the sector and no new licences for fixed telephony services having been granted<sup>17</sup>.
- 1.180 While rules on number portability and local loop unbundling had been adopted by the regulator, the timeframe for implementation was delayed pending adoption of the new sector policy by the Council of Ministers. Tariff rebalancing was still at an “early stage”.
- 1.181 The regulator required human, financial and technical resources in order to support the development of the sector.
- 1.182 The new Law on Wages and Allowances challenged the independence of the regulator, as did the unresolved issue of the nomination of its Director-General and difficulties with decisions of the regulator having to be submitted to the Council of Ministers. The Commission called on all stakeholders to work constructively to solve the outstanding issues and to guarantee the independence of the regulator.

## **9. Outlook**

- 1.183 Among the key priorities for the sector remain implementation of number portability and LLU, tariff rebalancing, adoption of the universal service framework, licensing of 3.5 GHz spectrum band for fixed wireless access.
- 1.184 A prerequisite for effective functioning of the national regulatory and policy-making authorities is the resolution of the uncertainty around the appointment of the Director General of RAK and strengthening of the institutional capacity of both the NRA and the Ministry of Transport and Communications.

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<sup>17</sup> Bosnia and Herzegovina 2008 Progress Report. SEC(2008) 2693 final.

## **Montenegro**

### **1. Legal and institutional framework**

#### *Law on Electronic Communications*

- 1.185 The new Law on Electronic Communications that was adopted on July 29, 2008 (Official Gazette 50/2008) and entered into force on August 27, 2008, defines the legal and institutional framework for the electronic communications sector, including the responsibilities of the government, the relevant ministry and the national regulatory authority. It replaced the previous Law on Telecommunications of 2000 and is intended to bring Montenegrin law into line with the EU 2003 regulatory framework for electronic communications.

#### *Ministry of Maritime Affairs, Transportation and Telecommunications*

- 1.186 The Ministry of Maritime Affairs, Transportation and Telecommunications is the government department overseeing the telecommunications sector<sup>18</sup>. Its main responsibilities include:

- developing national strategies and legislation for telecommunications;
- adopting secondary legislation within the legal framework;
- supervision of the implementation of the law and secondary legislation; and
- review of the NRA decisions subject to the administrative appeal procedures.

#### *Agency for Electronic Communications and Postal Services*

- 1.187 The Agency for Electronic Communications and Postal Services (EKIP) is established as a national regulatory authority, functionally independent of all entities operating electronic communications networks or providing services.
- 1.188 Initially founded in 2001 as a national regulator for telecommunications sector, its responsibilities were extended in 2005 to cover postal services and under the new Law on Electronic Communications adopted in 2008 the agency also took over the task of spectrum assignment for the broadcasting sector. EKIP is now the single regulatory body responsible for spectrum assignments in both telecommunications and broadcasting sectors, while the Broadcasting Agency is only responsible for broadcasting content issues. To be able to perform these new responsibilities, EKIP has also taken over part of the staff and the fixed assets of the Broadcasting Agency.

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<sup>18</sup> <http://www.vlada.cg.yu/eng/minsaob>

- 1.189 The new law changes the management structure of the NRA. Previously, the head of the Agency was a Director appointed by the government for a period of four years, with the possibility of reappointment for a second consecutive term. Under the new Law, the NRA is governed by the Council, consisting of the President and four members, while its professional services are managed by the Executive Director. The Council is a decision making body of EKIP that adopts its statutes, internal rules and procedures, approves its work plan, financial plan and annual report presented to the government, and adopts the regulatory measures and the decisions of the NRA. The Executive Director is responsible for organising and managing the professional service of the NRA.
- 1.190 The Council is appointed by the government upon the ministry proposal for a 5 years term of office. The Executive Director is appointed by the Council for a 4 years term of office. Neither the Council members, nor the Executive Director may hold office for more than two consecutive terms.
- 1.191 On December 11, 2008 the government appointed the Council of the NRA. The President and three of the Council members are engaged as full-time employees, and one member – part-time. On January 21, 2009, the Council appointed the Executive Director of EKIP who became the former director of the NRA.
- 1.192 EKIP is established as a self-financing entity, funded from three main sources: administrative fees, numbering and spectrum fees. The amount of fees to be paid to the NRA budget by authorised operators and service providers under the new law is approved annually by the government after the NRA has presented its financial plan and proposed fees. If the funds collected by the NRA exceed its expenditure for a fiscal year, the law no longer requires to transfer the surplus to the state budget but allows to move it in the next year's budget.
- 1.193 The new law has modified the appeal system for EKIP decisions. If in the past the decisions of the NRA were considered as final in the administrative procedure and could only be appealed to the Supreme Administrative Court of Montenegro, the new Law gives the ministry the power of the review of the NRA decisions in the administrative appeal procedure, before filing an appeal before the court.

#### *Information society*

- 1.194 The Ministry for Information Society established in December 2008 took over the tasks of the former Secretariat for Development. The ministry's main areas of responsibility are e-government, information society strategy and IT infrastructure. Its competencies include information security policy, information society statistics and electronic signature. Surveys for information society statistics are conducted by different non-governmental institutions.



In February 2009 the ministry published the Strategy for Information Society Development of Montenegro for the period 2009–2013<sup>19</sup>.

- 1.195 The Council for the “.me“ domain has been established by a government decision. It decides on the domain name policy and selects the agent for the registry.
- 1.196 Montenegro has transposed the Electronic Commerce Directive and the Electronic Signatures Directive. It has not ratified the Cybercrime Convention, but most crimes listed in the convention are considered as criminal offences in the Criminal Code.

## **2. Regulatory independence**

### *Privatisation and operational independence*

- 1.197 Montenegro no longer has state ownership in any of the telecommunications operators. In March 2005, the Government of Montenegro sold its 76.53% shareholding in Crnogorski Telekom to Magyar Telekom, a Hungarian subsidiary of Deutsche Telekom. Private investors hold the remaining 23.47% of the shares which are listed on the stock exchange. The government stake in ProMonte, a major mobile operator, now owned by the Norwegian operator Telenor, was sold in 2001.

### *Administrative independence*

- 1.198 The Law on Electronic Communications redefines the key functions of the ministry and the regulator making a clear division between the legislative and policy-making tasks carried out by the ministry (and the government) and the regulatory tasks performed by EKIIP.
- 1.199 However, the procedures for the appointment and the dismissal and the members of EKIIP Council through a government decision raise serious concerns about the administrative independence of the NRA. Another factor undermining the NRA independence is the new role of the ministry as an appellate body for EKIIP decisions along with its powers under article 130 of the new law to perform “supervision of legality and purposefulness” of the NRA activities.

## **3. Market access and authorisations**

- 1.200 Montenegro formally introduced full liberalisation of local, domestic long-distance and international networks and services on January 1, 2004. However, the high licensing fees, especially for international services, created a barrier to entry. Only in April 2007 the annual fee for international services was reduced from €100,000 to €1,000 effectively enabling a competitive market entry.

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<sup>19</sup> <http://www.gov.me/files/1235731125.pdf>

- 1.201 The Law on Electronic Communications introduces a general authorisation regime where electronic communications networks and services that do not require the use of limited resources can be provided without individual licences. These services can now be provided subject to a notification submitted to EKIP who must complete the registration within seven days. The one-off registration fee, according to the NRA financial plan for 2009, has been set at €1,000. Individual authorisations are issued by EKIP for the right to use radio spectrum and numbers.
- 1.202 Under the transitional provisions of article 141 of the Law on Electronic Communications, EKIP was required within a nine months period to harmonise all individual licences issued under the previous law with the new authorisation framework and complete the registration procedure of the existing operators.

#### **4. Market structure**

- 1.203 In practice, competition has only emerged in mobile networks, with the market entry of Promonte in 1996, and T-Mobile, the incumbent's mobile subsidiary in 2000 (Monet, at that time). A third mobile operator, m:tel, owned by the Serbian incumbent Telekom Srbija entered the market in 2007. All three operators have been issued spectrum licences for provision of 2G services in the 900 MHz and the 1800 MHz bands, and 3G services in the 2100 MHz band.
- 1.204 The fixed telephony market continues to be dominated by the incumbent operator Crnogorski Telekom. First licences for the provision of fixed voice telephony services by alternative operators were issued in late 2007 and early 2008. Following several successive public tender procedures, the NRA issued eight licences for the provision of VoIP services and four for FWA services in the 3.4-3.8 GHz band. The minimum one off-fee for FWA licence was set at €175,000 and the winning offers ranged from €1,050,000 to €175,000. The total proceeds of VoIP tender amounted to €60,000 with winning bids ranging from €10,500 to €15,000. So far, only one alternative provider, m:tel has started commercial provision of fixed voice telephony services on a large scale.

#### **5. Significant market power**

- 1.205 So far no comprehensive market analysis has been carried out by the NRA. Under the provisions of the Telecommunications Law of 2000, the fixed incumbent operator, Crnogorski Telekom, was deemed to have SMP in the markets for fixed networks and services and in Internet services, while T-Mobile and Promonte had SMP in mobile networks and services. None of the SMP obligations foreseen in the Telecommunications Law had been applied to mobile operators.
- 1.206 The new Law on Electronic Communications of July 29, 2008 contains new transitional provisions that designate Crnogorski Telekom as having SMP in the markets for fixed voice telephone networks and services including the markets for data transmission services and leased lines. Under the same provisions, all fixed and mobile network operators are deemed to have SMP in the markets for call termination in their respective networks, while the national broadcasting operator in the market for broadcasting

transmission services. The law, however, does not define any specific regulatory obligations that apply to the operators as a result of these SMP designations.

- 1.207 The new law provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the principles of the EU 2003 regulatory framework. Under the transitional provisions of article 143 of the Law on Electronic Communications, the NRA must complete its first market analysis within one year from the entry into force of the law, i.e. by August 27, 2009. In February – March 2009, the NRA held its first consultation on the market analysis procedures and definition of the relevant markets.

## **6. Competitive safeguards**

- 1.208 Only a few of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Montenegro.
- The first RIO of Crngorski Telekom was published in December 2004. In April 2008, the NRA approved a new RIO introducing some reductions to interconnection charges based on the EU benchmarks.
  - No RIOs have been published by mobile operators with SMP, T-Mobile and Promonte.
  - CS/CPS regulation was introduced in December 2007 and applies to both fixed and mobile networks. However, only Crngorski Telekom has introduced CS in its RIO so far.
  - No clear deadlines are established for the implementation of number portability and local loop unbundling.

## **7. Universal service and consumer issues**

- 1.209 No universal service provider has been designated so far.
- 1.210 The Law on Electronic Communications provides legal basis for the universal service and defines its scope as comprising: access to public fixed telephone services at affordable prices; equal access to publicly available telephone services at affordable prices for disabled users and users with special social needs; telephone directories and directory enquiry services; public pay phones; free access to emergency services.
- 1.211 Under the article 144 of the Law on Electronic Communications the NRA was required within 6 months from the entry into force of the law to adopt the necessary regulations and initiate tender procedure for the designation of the universal service provider. This was not achieved in practice, as the secondary legislation is still under preparation.

## **8. European Union**

- 1.212 The European Commission noted “some progress”, including new legislation aimed at alignment with the *acquis*, though it had been presented to parliament without prior public consultation<sup>20</sup>.
- 1.213 The procedures for appointing the board of the new regulatory authority, the division of responsibilities between the new regulatory authority and the ministry, as well the financing of the regulatory authority, gave “cause for serious concern about the NRA independence”. The administrative capacity of the Department for Telecommunications Policy within the Ministry of Maritime Affairs, Transportation and Telecommunications was assessed as “weak”. The majority of the new secondary legislation had yet to be drafted.
- 1.214 In the field of fixed networks and services, the regulatory authority issued licences for the provision of VoIP and for fixed wireless access (FWA), however most of the licences went to the three existing mobile operators and only one of them has so far launched commercial operations. So effectively, there had been no change in the level of competition.

## **9. Outlook**

- 1.215 Adoption of the new secondary legislation required under the new Law on Electronic Communications remains slow. Only two of the required secondary acts so far have been adopted by the ministry on the proposal of the NRA: the rulebook on the annual fees for the use of frequencies and the rulebook on the annual fees for the use of numbering resources and addresses. The institutional and administrative capacity of the ministry and the NRA needs to be improved in order to enable them to manage this task.
- 1.216 Other issues that must be addressed are the implementation of competitive safeguards, market analysis procedures and methodologies for price control of wholesale tariffs.

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<sup>20</sup> Montenegro 2008 Progress Report. SEC(2008) 2696.

## **Kosovo** **(under UN Security Council Resolution 1244)**

### **1. Legal and institutional framework**

#### *Introduction*

- 1.217 Since 1999, the institutional arrangements in Kosovo have been governed by United Nations Security Council Resolution 1244 (UNSCR 1244), adopted on June 10, 1999. This affirmed the commitment to the sovereignty and territorial integrity of the Federal Republic of Yugoslavia (now the Republic of Serbia), but also called for substantial autonomy and meaningful self-administration for Kosovo.
- 1.218 UNSCR 1244 established the United Nations Interim Administration Mission in Kosovo (UNMIK), headed by the Special Representative of the Secretary General (SRSG). Under the constitutional framework promulgated by the SRSG, administrative responsibilities in Kosovo were divided between UNMIK and the Kosovar Provisional Institutions of Self-Government (PISG), comprising the President, the Assembly and the cabinet of ministers, headed by the Prime Minister.
- 1.219 In February 2008, the Assembly unilaterally declared Kosovo's independence as the Republic of Kosovo. The new constitution for the Republic of Kosovo approved by the Assembly in April came into force on June 15, 2008. However UNSCR 1244 is still in force, which means that ultimate responsibility for the administration of Kosovo still falls on the SRSG, even after the proclamation of independence.
- 1.220 As of April 2009, the independence of Kosovo had been recognised by 57 countries. The UN Security Council remains divided on the issue: of the five permanent members the USA, the UK, and France recognised the declaration of independence, while Russia and China have not. The European Union has no official position on the status of Kosovo, although a majority of its Member States have formally recognised Kosovo (22 out of 27).

#### *United Nations Interim Administration Mission in Kosovo (UNMIK)*

- 1.221 Under the constitutional framework established by the international administration, specific responsibilities were reserved for UNMIK, including two aspects relevant for telecommunications:
- administration of state-owned and socially-owned companies by the Kosovo Trust Agency (KTA), including the incumbent fixed and mobile operator, Post and Telecom of Kosovo (PTK); and
  - management of spectrum by the Frequency Management Office (FMO) with assignment performed by the national regulator, TRA.
- 1.222 The declaration of independence facilitated the anticipated transfer of these responsibilities from UNMIK to the national institutions. In particular, the supervision of

PTK has been transferred to the Ministry of Transport and Communications, while spectrum management functions to TRA.

*Telecommunications Law*

- 1.223 The Telecommunications Law passed by the Assembly in December 2002 and approved by the SRSG on May 12, 2003 as UNMIK Regulation 2003/16, remains the principal legal instrument that defines the legal and institutional framework for the telecommunications sector in Kosovo<sup>21</sup>.
- 1.224 On June 13, 2008 the Assembly adopted a set of amendments to the Telecommunications Law removing all references to UNMIK, clarifying certain institutional aspects and strengthening the independence of the NRA.

*Ministry of Transport and Communications*

- 1.225 The Ministry of Transport and Communications (MTC)<sup>22</sup> is responsible for developing policies and drafting legislation for the telecommunications and ICT sectors. In the field of telecommunications, the ministry also supervises the operations of the state-owned incumbent operator, PTK.

*Telecommunications Regulatory Authority*

- 1.226 The Telecommunications Regulatory Authority (TRA) was established under the Telecommunications Law of May 2003 and began operations in January 2004. TRA is responsible for implementing the telecommunications sector policy in compliance with the relevant legislation, the adoption of regulations under the Telecommunications Law, issuing licences and authorisations for the provision of telecommunications networks and services, management of the numbering and spectrum resources.
- 1.227 TRA is managed by a board comprising five members who are appointed to and relieved from office by the Assembly, acting on the proposal of the government and the recommendation from the Minister of Transport and Communications. Their term of office is five years with the possibility of reappointment for one further consecutive term. The Minister of Transport and Communications, in consultation with the Prime Minister, designates one member of the Board to be Chairman, who is responsible for administrative and operational issues.
- 1.228 TRA is established as a self-financed and non-profit legal entity, with the main sources of funding based on fees collected under the Telecommunications Law, including authorisations, licensing, numbering and spectrum fees. TRA budget is approved by the

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<sup>21</sup> [http://www.unmikonline.org/regulations/2003/RE2003\\_16%20.pdf](http://www.unmikonline.org/regulations/2003/RE2003_16%20.pdf)

<sup>22</sup> <http://www.mtpt.org/>

Assembly and any surplus funds collected by TRA are transferred at the end of the year to the Kosovo consolidated budget.

- 1.229 Official acts and decisions of TRA can be appealed before the Administrative Court.

*Information society*

- 1.230 The Ministry of Transport and Communications is in charge of information society policy, although some of the competencies (in particular network and information security policy) are shared between this ministry and the Ministry of Public Services.
- 1.231 The Statistical Office is responsible for information society statistics. Kosovo has not established a body responsible for electronic signature. According to the Telecommunications Sector Policy, TRA will become responsible for domain name policy and will select the agent for the registry when Kosovo will acquire its own ccTLD.
- 1.232 The Law on the Information Society Services transposes in several chapters most of the relevant EU legislation on electronic commerce, electronic signatures, distance contracts, electronic invoicing, data protection in general (Directive 95/46/EC) and data protection in electronic communications<sup>23</sup>. It also contains a chapter on cybercrime. Kosovo is in the process of ratifying the Cybercrime Convention.

## **2. Regulatory independence**

*Privatisation and operational independence*

- 1.233 The incumbent operator, PTK, is 100% state-owned and until recently, under the control of the Kosovo Trust Agency, within the UNMIK administration. Now the state ownership and control functions are exercised by the Ministry of Transport and Communications who is also in charge of telecommunication sector policies.
- 1.234 Although the issue of PTK privatisation was addressed in the Telecommunications Sector Policy, adopted by the government in June 2007, it is unlikely that PTK will be fully or partially privatised in the near future.

*Administrative independence*

- 1.235 TRA was established under the Telecommunications Law as an independent regulatory body, with competencies to issue regulations for implementation of the law. Nonetheless, its operations had been subject to political and administrative interference, by both UNMIK and the government.

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23 The Privacy Directive 2002/58/EC is transposed both in the Law on the Information Society Services and in the Law on Telecommunications, which may lead to some confusion.

1.236 Another factor undermining the status of the NRA as an independent institution has been unclear or inconsistent provisions in the Telecommunications Law, in particular:

- Section 4(1) of the Law stating that TRA is a body “within the Ministry” and
- Section 5(4) stating that “all funds collected by TRA shall be deposited pursuant to the applicable budget procedures pertaining to all Government funds in Kosovo.”

1.237 These have been interpreted as barring TRA from collecting and keeping its own funds and from having its own bank account. As a result, TRA was required by the Ministry of Economy and Finance to make all its payments through the treasury, in the same way as other budgeted agencies, so that, in practice, it has been unable to manage its funds independently. Furthermore, under the treasury payment procedures, the salaries of TRA staff are linked to civil servant pay scales, making it impossible for TRA to decide independently on salaries and thus being unable to recruit and to retain qualified professionals.

1.238 On June 13, 2008 the Assembly adopted a set of amendments to the Telecommunications Law intended to strengthen the independence of the NRA. In particular, the amendments<sup>24</sup>:

- remove all references to UNMIK, its Frequency Management Office (FMO) and to the SRSG;
- establish TRA effectively as the sole authority to allocate radio frequency spectrum, subject to “Assembly review and approval in writing” of the TRA spectrum plan;
- remove the definition of TRA as a body “within the Ministry”.

### **3. Market access and authorisations**

1.239 The telecommunications market in Kosovo was formally liberalised following the adoption of the Telecommunications Law in May 2003, but the practical implementation was significantly delayed.

1.240 Although the first authorisations to three national ISPs were issued in May 2005, a comprehensive authorisation framework for telecommunications operators was adopted only in September 2005. This framework represents a system of class licences with specific conditions and licence fees set depending on the specific service. The one-off licence are ranging from €87,500 for national public fixed telephony services, €50,000 for

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<sup>24</sup> [http://inclave.org/m/file.php?file=LAW\\_AMENDING\\_THE\\_LAW\\_ADOPTED\\_BY\\_THE\\_ASSEMBLY\\_OF\\_KOSOVO\\_2008\\_03-L085\\_en.pdf](http://inclave.org/m/file.php?file=LAW_AMENDING_THE_LAW_ADOPTED_BY_THE_ASSEMBLY_OF_KOSOVO_2008_03-L085_en.pdf)



international telecommunications facilities and €35,000 for international telecommunications services to €5,000 for Internet services.

- 1.241 PTK maintained its exclusive right over access to international gateway facilities until December 31, 2007.

#### **4. Market structure**

- 1.242 PTK maintains its dominance in the provision of public fixed telephony services. However, two alternative network operators have recently entered the market. On September 8, 2006 IPKO, controlled by Telekom Slovenije, was granted the second licence for the provision of national public fixed telephone networks and services. IPKO launched commercial services in 2008. In January 2009, the third licence was issued to Konet that has not yet become operational.
- 1.243 Much more competitive is the Internet services sector, where the incumbent ISP's market share by number of connections is only around 18%. The majority of the broadband connections in Kosovo are offered by alternative ISPs over cable infrastructure.
- 1.244 There are two 2G mobile network operators licensed by TRA. The incumbent's mobile subsidiary, Vala was issued the first GSM licence in the 900 MHz spectrum in July 2004. On March 6, 2007, following an international tender procedure, TRA granted the second GSM licence in the 900 MHz and 1800 MHz to IPKO. No decision on 3G/UMTS licences has been adopted yet.
- 1.245 Following the adoption of the regulatory framework for MVNOs in May 2008, TRA issued two MVNO licences in June 2008. One of the MVNOs, Dardafone, operates based on a network access agreement with Vala, while the second, Dukagjini Telecommunications, has concluded an agreement with IPKO.
- 1.246 In addition to the operators licensed by TRA, two mobile operators licensed in Serbia maintain their presence in Kosovo without authorisation from the Kosovar authorities.

#### **5. Significant market power**

- 1.247 Under the Telecommunications Law, the NRA has discretion to define relevant markets by the application of competition law principles. Undertakings with SMP are designated on the basis of a simple 25% market share threshold, sometimes combined with the assessment of other criteria.
- 1.248 Basic remedies for all operators with SMP are defined by the Law, including the obligations of network access and interconnection, transparency, cost orientation and the requirement to publish all the necessary information related to provision of access and interconnection.

- 1.249 So far no comprehensive market analyses have been carried out by TRA. By the provisions of the Telecommunications Law, the fixed incumbent operator, PTK, is deemed to have SMP in fixed networks and services, while its mobile subsidiary, Vala, has SMP in mobile networks and services.

## **6. Competitive safeguards**

- 1.250 Kosovo is still lagging behind with implementation of the key competitive safeguards foreseen under the EU 1998 regulatory framework.

- The first RIO of the fixed incumbent operator, PTK, was approved by TRA on January 12, 2007.
- TRA mediated in an interconnection dispute between Vala and IPKO, and set out mobile termination rates, using a benchmark.

- 1.251 There is no clear timeframe for the implementation of CS/CPS, number portability and local loop unbundling. The implementation of number portability is delayed by the fact no country code has been assigned to Kosovo by ITU-T. Currently the Serbian country code (+381) continues to be used for the fixed network, while mobile operators use two other codes: Vala uses Monaco (+377) and IPKO uses Slovenia (+386).

## **7. Universal service and consumer issues**

- 1.252 There is no established framework for universal service in Kosovo. The Telecommunications Law provides that TRA shall adopt a comprehensive framework for the provision of universal service covering its scope, the designation of providers and the funding mechanism. The Telecommunications Sector Policy adopted by the government in June 2007 envisaged that within 12 months, the Ministry and TRA would present a proposal for the implementation of universal service for consultation.

- 1.253 According to the policy, the minimum scope of the universal service should include:

- access to publicly available telephone services enabling users to make and receive local, national and international telephone calls, and fax communications, plus functional Internet access, at reasonable prices;
- access to information in the single directory;
- access to public pay telephones from which it is possible to make emergency calls without having to use any means of payment;
- measures for disabled end users that enable equivalent access to publicly available telephone services.

- 1.254 According to the policy, one possible alternative would be the inclusion of universal service obligations in the licences of telecommunications operators and service providers.

- 1.255 No proposal has been yet presented by the authorities. In the absence of an explicit universal service framework, several elements of the universal service have been included as obligations within the scope of the licence conditions of the incumbent operator, PTK, and the new entrant alternative operator, IPKO.

## **8. European Union**

- 1.256 The European Commission reported some progress<sup>25</sup>. For example, a second mobile operator had become active on the market and two MVNO licences were issued following the introduction of a regulatory framework for MVNOs.
- 1.257 Amendments to the telecommunications law had strengthened the independence of the regulator and gave it responsibility for spectrum allocation and management. The implementation of the sector policy had been delayed, due to a lack of cooperation between the relevant authorities. There had been “no progress” on increasing competition in the fixed telephony market. Kosovo was still seen as being at an “early stage” of liberalisation, with none of the competitive safeguards in place.
- 1.258 The administrative capacities of the ministry and of the regulator were held to be “insufficient”, lacking the necessary levels of human resources and expertise.

## **9. Outlook**

- 1.259 The main challenge is to ensure the functioning of TRA as a truly independent institution, in line with the recently adopted amendments to the Telecommunications Law. A closely related issue is improving its expertise and administrative capacity. Following the expiry of the mandates of TRA Board Members at the end of 2008, no decision has been made on the new appointments.
- 1.260 The administrative capacity of the Ministry of Transport and Communications also needs to be strengthened.
- 1.261 Other outstanding issues are the adoption of the secondary legislation and the effective implementation of competitive safeguards.

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<sup>25</sup> Kosovo 2008 Progress Report. SEC(2008) 2697

## **2 SUMMARIES FROM THE COMREG REPORT (2008)**

- 2.1 This appendix considers what experiences other countries have had in relation to realising their respective digital dividends. We emphasise that the material shown here is reproduced directly from our 2008 report, without editing and without updates.
- 2.2 We focus on eleven countries, plus the European Commission as a supra-national body. The selected countries, together with our reasoning for their inclusion, were as follows.

### **Countries selected for comparison**

#### **EU Member States (in alphabetical order)**

- 2.3 **Finland** has a population roughly comparable with that of Ireland (5 million and 4.4226 million respectively) together with issues arising from the fact that both countries have some densely populated areas and a scattered rural population. In addition, Finland was the first EU Member State to achieve DSO in television broadcasting, and it might thus have more experience to offer than Member States which have not yet done so.
- 2.4 **France** was chosen as a large-population Member State with broad-based and competitive broadcasting and telephony sectors, and also with issues arising from needing to avoid signal interference with a significant number of neighbouring countries: Belgium, Luxembourg, Germany, Switzerland, Italy, and Spain (and, arguably, Andorra and Monaco). Conversely, potential issues arise for France in possibly catering to the French-speaking population in Belgium, Switzerland and of course vice versa.
- 2.5 **Italy** was chosen as a second large-population Member State, and one which, on the face of it, is proceeding more slowly with its decision-making than some other larger Member States. We were keen to explore what issues remain open in Italy, and why.
- 2.6 **Sweden** was our choice for an EU Member State with a medium-size population. It is bounded on one side by an EU Member State, Finland, which has proceeded somewhat more quickly with digitalisation, and by a non-EU jurisdiction, Norway. Its “neighbourhood” issues are thus of interest.
- 2.7 The **United Kingdom** has substantially developed, and has documented well, its thinking in relation to DSO and the digital dividend. The publications of Ofcom are a rich source of analysis and ideas. The UK has highly competitive broadcasting and telephony markets. And it has border issues to deal with in relation to Ireland: because signals from Wales currently spill over to the east coast of Ireland, and because of the land border between Northern Ireland and the Republic of Ireland.

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<sup>26</sup> Central Statistics Office Ireland: Population and Migration Estimates, August 2008.

### **Non-EU member states (in alphabetical order)**

- 2.8 **Australia** was chosen for a combination of reasons: a highly-developed regulatory régime, population dispersed between a few large cities and immense rural areas, and competitive communications sectors. Australia does not have border issues to contend with, so that its ability to exploit spectrum without regard to interference with or from neighbours may have something useful to tell us.
- 2.9 **Canada** was chosen partly to provide a comparison with the neighbouring United States and partly because it has most of its population distributed across a relatively small number of towns and cities, with the remainder widely dispersed. In principle, though not in scale, Canada has some issues in common with Ireland and Australia.
- 2.10 **Japan** suffers extreme spectrum congestion. However, its exploration into different uses of the digital dividend is relatively advanced and this, together with its high level of technology adoption in the communication sector, may provide useful indications of future possible uses for the dividend in Ireland.
- 2.11 **New Zealand**, like Australia, has a highly-developed regulatory régime, a population resident largely in towns and cities, with the rest distributed across rural areas, and no problems of signal interference with or from neighbours. Its population (5 million) is broadly comparable with that of Ireland.
- 2.12 **Switzerland** seemed to us to offer a potentially interesting comparison with EU Member States, in that it is part of Europe but not of the EU. It has significant issues of borders and topology, and it needs to serve multiple language groups.
- 2.13 We chose the **United States** because of its overwhelming importance in the world economy, and its advanced thinking and practices in regulatory matters in general and in communications in particular. It is remarkably well documented: the Federal Communications Commission (FCC) website in particular is extraordinarily informative. Like Australia and Canada the US has both densely and thinly populated areas.

### **The six EU Member States**

- 2.14 We adopt a broadly common form of analysis: what progress has been made or is intended towards DSO; how much spectrum is to be released and when; what strategies (if any) have been announced; and what reasoning lies behind such strategies.

### **Digital timetable and dividend**

- 2.15 The positions of the six EU Member States are set out in Table A5.1 below. Here we show when digital television transmission (DTT) started and when final DSO is planned.

**Table 2.1: DTT start and DSO dates in six EU Member States**

| Member State   | DTT start date | DSO date |
|----------------|----------------|----------|
| Finland        | 2002           | 2007     |
| France         | 2005           | 2011     |
| Italy          | 2003           | 2012     |
| Sweden         | 1999           | 2008     |
| United Kingdom | 1998           | 2012     |

*Source: Europe Economics compilation from NRA websites*

- 2.16 Although the sample size is small, Table A5.1 reveals notable differences in how long Member States reckon to take between their DTT start date and their final DSO. Finland took five years and France is expecting to take six. Italy had deferred its DSO date from 2006 to 2008 and has just deferred again to 2012; if it achieves that it will have taken nine years – the same period of time as Sweden. And if the UK achieves DSO in 2012 it will have taken fully fourteen years from DTT start, having twice abandoned earlier DSO dates of 2006 and 2010.
- 2.17 Table 2.2 summarises the amount of spectrum that the five Member States are planning to release after allocations to DTT. The total represents the digital dividend.

**Table 2.2: The digital dividend in six EU Member States**

| Member State   | Breakdown of digital dividend Spectrum Bands (MHz) | Total digital dividend (MHz) |
|----------------|--|------------------------------|
| Finland        | 112 UHF<br>77 VHF                                  | 189                          |
| France         | 180 UHF<br>49 VHF                                  | 229                          |
| Italy          | Yet to be finalised                                | Yet to be finalised          |
| Sweden         | 112 UHF<br>77 VHF                                  | 189                          |
| United Kingdom | 112+16 UHF <sup>1</sup>                            | 128                          |

*Note 1: 16 MHz is to be released from radar and radio-astronomy use*

*Source: Europe Economics from NRA websites*

## Strategies adopted by the EU Member States

- 2.18 Although, as we have acknowledged, our sample size is small, the diversity of strategies adopted by Member States is remarkably wide. If there is any common thread, it is that governments want minimum disruption to consumers' television habits during and immediately after the transition. Thus, television tends to dominate spectrum allocations.

## Finland

- 2.19 In summary, Finland has focused largely on using its digital dividend for television services and has been silent on the allocation of spectrum to other services (save for a decision to deploy the 450 MHz frequency band for broadband use) and on the achievement of commercial as distinct from public service or public safety objectives.
- 2.20 The principal official document published in 2007 is a working group document proposing Finland's planning for the digital dividend (in English *The Use of Analogue Television Spectrum after the Digital Switchover*). This document makes no mention of how spectrum is to be paid for. Since demand for spectrum for broadcasting is for the foreseeable future less than supply, no question of beauty contests or auctions arises.
- 2.21 Under GE06 Finland may allocate seven multiplexes in the UHF band and two in the VHF. The government has already allocated four to digital terrestrial television (DVB-T) and one to mobile television (DVB-H), with the remaining two as yet unallocated. DVB-H service began in three cities in December 2006. Furthermore, Finland has shown close interest in the promotion of regional television programming and has planned extensive coverage for it.
- 2.22 No further specific allocations are proposed, except that
- “Finland has taken the decision to deploy the 450 MHz frequency band for broadband use. ...this band is ideally suited in terms of its radio-technical characteristics for building broadband connections in this sparsely populated country...” (*op.cit.* para. 8.4)
- 2.23 Finland also has to attach weight to actions by its neighbours, principally Sweden and Russia:
- “.. the release of spectrum is dependent not only on decisions taken in Finland; the timetables for the digital switchover in neighbouring countries also come into play... Sweden will be shutting down its last analogue transmitters in November 2007, but based on current knowledge analogue broadcasts in Estonia will continue through to the end of 2012. Information on the situation in Russia is variable, but one realistic assessment suggests that analogue transmitters there will shut down in 2015.” (*op.cit.* para. 6.5)

## Sweden

- 2.24 To summarise, Sweden is vocal in support of EU coordination of spectrum use as regards the digital dividend. The Swedish communications regulator, Post & Telestyrelsen (PTS), supports the notion of auctioning spectrum where demand exceeds supply<sup>27</sup>, and also supports spectrum trading (i.e. the transfer of licences) subject to PTS consent.

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<sup>27</sup> Indeed, PTS auctioned 2.6 GHz spectrum in May of this year, raising the equivalent of roughly €230 million for the Swedish Treasury.

- 2.25 Finland and Sweden have in common a desire to avoid taking spectrum decisions in haste, despite their both having achieved early DSO. In other important respects, however, they take differing views on exploiting the digital dividend. Sweden recognises that spectrum has great potential value commercially and to society. In a recent report, PTS stated that:

“PTS is of the view that it must be considered whether other applications, for example those described in this report, can bring greater value to society and the consumer, than the usage for more television services can.” (*op.cit.* p.13)

- 2.26 Indeed, Sweden has already decided that Bands I and III will not be used for future television broadcasting. Band I has attracted little commercial interest but is of interest to the Armed Forces and radio amateurs. Parts of Band III are also of interest to the Armed Forces.

- 2.27 Sweden is strongly in support of EU coordination of spectrum use rather than in going its own way. A 2006 report by PTS entitled “The use of radio spectrum following the switchover to digital terrestrial television broadcasting” records that:

“PTS considers that it would be of great value if the European countries can through coordination reach agreement on how the entire or parts of the spectrum that is released as of the switch-off of analogue television broadcasting shall be used. Therefore, Sweden should, in the opinion of PTS, not make decisions regarding the use of spectrum in the bands III, IV and V which in practice would be irrevocable before the European countries have made a joint decision on the matter.” (*op.cit.* p.13)

#### *France*

- 2.28 Summary: France estimates its digital dividend at about 230 MHz (a quite substantial figure relative to other EU Member States) and a report commissioned by the national regulator, ARCEP, strongly recommends a shared allocation of the digital dividend across the audiovisual and electronic communications sectors, with the majority share going to television.

- 2.29 A report by the Commission for the Digital Dividend to the President of France in July 2008 suggested that the digital dividend in France is around 230 MHz (180 MHz for the UHF stream and an additional 49 MHz or so for most of the VHF Band III). This Commission favoured reallocation of this spectrum so as to avoid causing inconvenience to viewers and to obtain the maximum possible range of channels and services for consumers by the end of 2011. The licensing of new broadcasters to ensure the extension of DTT coverage would also need to be undertaken in a consistent and coherent manner.

- 2.30 The report also notes that two distinct approaches often clash when it comes to the question of utilising the dividend, the one emphasising pluralism and cultural diversity, the other focusing on the optimising the national economic interest. It positioned itself in favour of attaining a golden mean of these two perspectives.



- 2.31 In a review conducted for the French communications regulator, ARCEP, consultants Analysys Mason used two approaches to evaluate alternative allocations of the digital dividend. The first, which they called the “sharing approach”, envisaged allocation of a minority of spectrum frequencies to electronic communications services, with the majority to go to audiovisual services. The second, in contrast, proposed that the entire digital dividend be allocated to audiovisual services alone and was therefore referred to as the “audiovisual only” approach.
- 2.32 The study estimated that opting for the sharing approach would increase social gain (also referred to in some reports as social welfare) by greater than €25 billion between 2012 and 2024 over and above the benefits offered by the audiovisual-only option. Furthermore, the sharing scenario was estimated to lead to a rise in GDP of €7.1 billion over the 2012-2024 period, as compared with a rise of €2.3 billion with the audiovisual only approach.
- 2.33 The report concludes that the digital dividend cannot be viewed merely from an economic standpoint, but needs also to be analysed for externalities. The result appears to point strongly towards a shared allocation of the freed spectrum across the audiovisual and electronic communications sectors, which would satisfy Parliamentary objectives more effectively than an audiovisual-only mandate. (Parliament had already required that most of the freed spectrum be reallocated to audiovisual (television) services.
- 2.34 However, the precise allocations of spectrum to different types of services remain to be seen.
- 2.35 France is silent on the question of mechanisms whereby an excess of demand over supply for the freed spectrum should be dealt with. It does, however, have experience of spectrum auctions, in that the Ministry of Economics, Finance and Industry raised €125 million from the auction of 3.5 GHz frequencies in July this year, and subsequently agreed to allow trading in that spectrum.

### *Italy*

- 2.36 Italy presents an intriguing situation. Following a four-year deferral (from 2008 to 2012) of the DSO date, Italy’s communications regulatory authority (Agcom) has allocated the first major portion of the DTT spectrum to the three leading terrestrial broadcasters, namely RAI, Mediaset and Telecom Italia Media. Agcom’s decision was based on the belief that allocating equal portions of such spectrum would promote pluralism and competition and thereby boost the broadcasting market.
- 2.37 Although there appears to be no explicit statement in any of the documentation we have been able to procure, the decisions of Agcom as well as those of the Ministry of Telecommunications hint strongly that spectrum available after DSO will be used largely or solely for broadcasting purposes: no mention of any possible alternative use is made. At present, it is not even clear what frequencies will be freed up after DSO, and there are therefore no firm plans on how to use the Italian digital dividend.

- 2.38 Agcom has approved a national frequency plan that forms the basis upon which operators would build after DSO.
- 2.39 Agcom is also implementing some initiatives on the spectrum available for digital broadcasting which, although not specifically related to the “true” digital dividend, are interesting in relation to the Irish situation.
- 2.40 Broadcasters with more than one analogue channel are required to reserve 40 per cent of transmission capacity on their digital multiplexes to third parties in order to allow them to broadcast DTT. Part of this capacity is to be made available on a national basis and part on a regional basis. Third parties in this context cannot be companies controlled by or controlling current broadcasters, and nor can they be part of the same group.
- 2.41 In December 2007 Agcom approved the process by which transmission capacity should be transferred to third parties. It left the current capacity holders to determine the price at which third parties could access transmission capacity, though Agcom reserved the right to intervene. The selection of third parties took place by means of a beauty contest and Agcom recently published the outcome: 25 operators have been identified as suitable to access national transmission capacity and two operators for local capacity. The evaluation took place against criteria laid down by Agcom relating to programme content, company standing, and technological issues.
- 2.42 It is important to bear in mind that, theoretically, the operators which succeed in this process will gain access to transmission capacity only up to the DSO date, since thereafter frequencies should be re-assigned on the basis of Agcom’s National Frequency Plan. Whether this will actually happen is difficult to say: the first national plan, which dates from 1998 and did not cover digital, suffered long delays in implementation. The operators that held the frequencies up to 1998 have been allowed to continue using them at the expense of new entrants.
- 2.43 Overall, although Italy does not in our view present a model for others to follow, its approach to sharing digital transmission capacity, if only on a non-permanent basis, is worth noting.

*United Kingdom*

- 2.44 To summarise, the UK regulator, Ofcom, is strongly in favour of pursuing a market-led approach to the digital dividend, having identified many possible uses for this spectrum and having estimated the likely benefits to be significant. Auctions for available spectrum are due to take place in the coming months.
- 2.45 At present, nearly half of the spectrum between 200 MHz and 1 GHz is used to broadcast analogue television: specifically 368 MHz, or 46% of the 800 MHz. As the UK’s analogue television signals are switched off, region by region, between 2008 and 2012, in principle all 368 MHz might become available for new uses. But it had previously been decided by the Government that 256 MHz should be reserved for DTT. DTT will be provided by six multiplexes. This decision will allow digital terrestrial television to expand both its coverage

- to match that of analogue, at 98.5 per cent of the population; and its capacity – to around ten times that of analogue in most of the country.
- 2.46 At the same time, DSO will allow the remaining spectrum – 112 MHz – to be released for new uses, and it is this 112 MHz, together with 16 MHz to be released from radar and radio-astronomy applications, that forms the core of the UK's digital dividend. The communications regulator, Ofcom, has identified many possible uses for this spectrum. But it has also recognised that it is not possible to identify all the possible uses.
- 2.47 Ofcom takes the view that excessive regulation of spectrum has led to scarcity and inflexibility. Competition and innovation have, it considers, been damaged as new entrants and new technologies have struggled to gain market access. Ofcom therefore adopts a market led approach which entails:
- liberalising spectrum by imposing as few constraints as possible. Some constraints are unavoidable, to avoid interfering with other services and to meet international obligations. But these constraints apart, users should be free to decide *how* the spectrum should be used, for *what*, and by *whom*.
  - awarding spectrum through service and technology neutral auctions, or where spectrum is already licensed, introducing Administered Incentive Pricing (AIP) to ensure that licence fees provide incentives to use spectrum efficiently by reflecting its value.
  - allowing spectrum to be traded between users.
- 2.48 Ofcom does, however, recognise that some rules are needed to ensure competition in downstream markets, and to guard against anti-competitive spectrum hoarding.
- 2.49 Ofcom has developed a model for the estimation of benefits arising from the digital dividend. Essentially, the model computes Total Value as the sum of Private Value and External (societal) Value. Private Value in turn breaks down into Producer Value and Consumer Value. External Value breaks down into “Broader Social and Citizen Value” and “Other Sources of External Value”. In its report “Digital Dividend Review, a statement on our approach to awarding the digital dividend” dated December 2007 Ofcom supplies a table (it is Table 2 on page 56 of the original text) which breaks down these aggregate estimates by type of service, and we reproduce this table below. Apart from suggesting possible uses of the digital dividend, the table shows that the range of net present valuates for almost every service, and in total at between £3.5 billion and £15.5 billion (€4.4 billion to €19.3 billion) is extremely wide.