LUXEMBOURG

MAIN MARKET DEVELOPMENTS

The total revenues of the Luxembourg electronic communications sector were stagnating in 2009 at €506 million, being the same figure as in 2008. The total value of tangible investments in electronic communications networks in 2009 was €86.96 million, 0.8% less than in 2008. The incumbent invested approximately €52 million in fixed telephony networks, while alternative operators invested only around €8 million. The investments by mobile operators amounted to €26 million in 2009, an increase of €1 million when compared to the previous year's figure.

Broadband penetration continued to increase in 2010. In the competitive mobile sector, the incumbent retained its strong position. The long discussed project merger of the mobile and fixed divisions of the incumbent remains vague. Consumers in Luxembourg increasingly opt for bundled offers which combine broadband, mobile and fixed telephony. As of July 2010, 27.5% of the population used bundled offers, which was up from 23% in December 2008. One alternative operator included IPTV in its commercial bundled offer in 2010, while IPTV is available as a stand-alone product by the incumbent. Alternative operators continue to express concerns as to their ability to compete should the incumbent choose to offer bundled services including TV.

MAIN REGULATORY DEVELOPMENTS

In order to transpose the revised EU regulatory framework, the Government submitted the principal bill to the Parliament (*Chambre des députés*) in June 2010. Following the opinion of the State Council of December 2010, it was finally adopted at the end of January 2011. Upon its publication[1], the new law replaces the current Law of 30 May 2005 on electronic communications networks and services.

Parts of the "Reform Package 2009" have been, or still remain to be, partially transposed by additional legislative measures. The amendment to the Law on the organisation of the NRA, which strengthens its independence, was adopted in July 2010. The law amending the Law on the management of radiowaves was also adopted by the Parliament in January 2011. The purpose of the latter instrument is to define the competence of the ILR in spectrum management, and to set out rules for the financing of its activities in this field. Furthermore, it should improve the efficiency and coordination of spectrum management in Luxembourg with regard to the European spectrum policy. Finally, an amendment to the Law on the protection of personal data in the electronic communications sector was submitted to the Parliament in January 2011.

By contrast, the Luxembourgish NRA, the *Institut Luxembourgeois de Régulation* (ILR), has not adopted any regulatory measure that would significantly change market conditions in 2010, nor has it notified any market analysis to the Commission during this year.

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[1] The new law has been published on 8 March 2011.

NRA

ILR's budgetary independence was further strengthened by a new law passed in 2010. In 2010, the ILR started recruiting new personnel based on the earlier legislative measure that allowed it to increase the number of its staff. Part of the new staff is to be assigned to carry out ILR's tasks that are related to the electronic communications networks and services sector. In 2010, the ILR seemed to concentrate on the implementation of the Government's very high-speed broadband strategy which is generally considered a priority.

Market players feel that the regulator requires a lot of time in defining its regulatory strategy, and they point to the fact that, in 2010, the ILR did not adopt any new market analysis decision. A number of commercial offers thus remain unregulated. In the first half of 2010, the NRA took three decisions in its dispute resolution capacity. The ILR also carried out pre-consultations on certain reference offers in order to give the incumbent a better opportunity to include the comments of alternative operators into its draft reference offers.

The cooperation between the ILR and the Luxembourgish competition authority (*Conseil de la concurrence*) does not seem to raise any concerns. The competition authority took one decision concerning the electronic communications sector in 2010, which penalised anti-competitive practices of one of the cable operators.

ECONOMIC REGULATION

Broadband

Broadband plans

In March 2010, the Minister of Communications and Media and the Minister of the Economy and External Trade jointly presented the "National Strategy for very high-speed networks" concerning the development of next generation networks. This operational strategy aims to increase the speeds of the existing networks, and encourages sufficient investments in the effective roll-out of next generation networks that would make Luxembourg the first "fibred" country in the EU. Regarding speed targets, a minimum 2 Mbps downlink should be available for 100% of the population in 2010, 100 Mbps downlink by 2015, and 1 Gbps by 2020. Furthermore, in terms of intermediate coverage-related objectives, 95% of the population should already have access to 25 Mbps downlink by 2011, while 80% of the population should have access to 100 Mbps downlink in 2013 and 50% of the population should have access to 1 Gbps downlink in 2015.

In the meantime, zones reserved for economic activity should also have very high broadband access by 2013. From 2011, new buildings should be equipped with passive in-house ducts and connected equipment necessary for the continuation of the optical fibre network. Investment costs should be reduced thanks to a new national infrastructure inventory and a more efficient use of civil engineering works for fibre deployment. The infrastructure inventory is to be established via the transposition of the telecoms package. The ILR will have the right to request information from both telecommunications and non-telecoms carriers, although it will have no means of compelling these undertakings to provide such information. The new registry of civil engineering works is to identify work permits usable for fibre deployment. Finally, the authorities are examining the frequencies that are likely to contribute to meeting the very high broadband targets via mobile technologies. Coordination with neighbouring countries is necessary in this regard.

Actually, the incumbent, which has been deploying a VDSL network since 2006, is the only market player that can ensure that the objectives of this strategy are met. The strategy is welcomed by the alternative operators, who also point to the necessity to ensure that access to the fibre infrastructure of the incumbent is guaranteed for alternative operators. While about a quarter of households had already been covered by GPON (Gigabit Passive Optical Networking) technology, in 2010 the incumbent decided to favour the development of point-to-point technology, which offers a dedicated fibre for alternative operators. Such FTTH network is to provide alternative operators with open access, whereas, with regard to the GPON part, the alternative operators are reflecting on other solutions such as Virtual Unbundled Local Access (VULA).

Market situation

Luxembourg's broadband penetration rate has increased by 1 percentage point since January 2010, reaching 33.1% in January 2011, which is well above the EU-27 average of 26.6%. Luxembourg has the third highest broadband penetration rate of the EU. The incumbent's share of broadband DSL lines has decreased slightly to 79.2% as of January 2011, compared to 79.7% as of January 2010. The incumbent had a 67.8% market share (75.6% if the resale of lines of alternative operators is included) of broadband lines, while alternative operators had a market share of 32.2% in January 2011.

In January 2011, 66% of the connections were providing a speed of between 2 Mbps and 10 Mbps, while 27.4% were providing more than 10 Mbps. The remaining 6.6% of the connections were providing a speed of below 2 Mbps. FTTH lines represented only 0.48% of the total broadband lines in January 2011.

With regard to the LLU market, the number of fully unbundled lines supplied to alternative operators continued to increase, and covered 55.4% of broadband lines as of January 2011 in comparison to 47% one year earlier. While a cost-orientation obligation is implemented in the incumbent's reference offers for unbundling and collocation, the price charged for LLU has nevertheless not changed since 2007 and the connection fee remained high, for both full LLU (€91.1) and shared access (€157.4) as of October 2010. Alternative operators have been requesting for several years that this connection fee be brought closer to the EU average (i.e. €41.73 for shared access).

Regulatory issues

While the incumbent's draft reference collocation offer (RCO) 2009-2010 was subject to public consultations in 2009, it had not yet been completely approved in 2010. In December 2008, the validity period for the RCO for 2007-2008 was extended for an unspecified period of time. In July 2010, the NRA finally approved the qualitative (non-tariff) part of the 2009-2010 RCO.

In March 2010, the incumbent announced its intention to launch its retail VDSL and fibre offers as well as a commercial wholesale offer to alternative operators. The ILR has banned the launching of the offer on the grounds that the incumbent failed to inform the regulator sufficiently in advance, and that alternative operators would not be able to replicate the retail offer of the incumbent in a timely manner. It based its decision on the market analysis of market 12 that was finalised in 2008. The incumbent has filed an administrative appeal with the regulator, which was refused. Following from this, the incumbent chose not to avail of its right to lodge another appeal.

Throughout the course of 2010, the ILR carried out two public consultations on the two related draft reference offers, RDSLO (reference DSL offer) and ORATH (reference offer for broadband access over FTTH). Some alternative operators criticised the alleged incoherence in the prices for DSL compared to FTTH (price for 1 Mbps being much higher on DSL), the "retail minus" pricing model for wholesale offers and insufficient guarantees concerning the timely implementation of bitstream access to the fibre. These operators also expressed regret that they would not be able to offer IPTV, although the incumbent offered to undertake a technical analysis regarding the possibility of providing a wholesale IPTV offer. In December 2010, the ILR published contributions to the latter public consultation, but did not yet decide to approve the reference offers. Alternative operators have nevertheless access to the optical fibre of the incumbent on the basis of an unregulated commercial offer.

The incumbent and alternative operators had still failed to reach consensus on bitstream by the end of 2010. In the absence of a regulated bitstream offer, the incumbent provides a commercial offer whose technical specifications do not seem to satisfy the alternative operators. The alternative operators express regret that no regulated wholesale offer of Ethernet based bitstream services exists, and claim that the incumbent's commercial proposal is not economically viable.

Mobile

Market situation

The mobile telephony sector can be characterised as being quite competitive. The incumbent retained a strong position on the market in 2010, while the first competitor's market share decreased slightly and second competitor's market share increased. The three virtual network operators (MVNOs) present in Luxembourg are resellers active in "niche markets" such as clients travelling regularly across the border.

As of October 2010, the penetration rate for mobile services stood at 144%, which was 2 percentage points up in comparison to the previous year, and which was well above the EU average of 124.2%. The proportion of pre-paid subscribers decreased from 39.3% to 36.1% by October 2010. Data traffic was growing rapidly thanks to the robust deployment of 3G networks on the part of all three operators. The number of mobile users accessing data services via 3G increased significantly from approximately 105 000 to 230 000 throughout the year until January 2011.

Regulatory issues

The two licensees which were granted 3G licences in 2008 were still not operational in 2010. The licence conditions do not contain strict obligations in terms of coverage.

Mobile termination rates throughout 2010 remained asymmetric in favour of one of the three operators. This operator benefited from a glide-path which was based on a decision taken by the ILR in May 2006. The last cap reduction was set for July 2008. The ILR planned to establish a new cost model in cooperation with external consultants for the next market analysis, taking into account the size of the Luxembourgish market.

One of the operators carried out six month long tests using LTE technology throughout the second half of 2010 based on a short-term license. According to operators, the deployment of LTE in the 2.5 GHz frequency would present the risk of interference from neighbouring countries.

Roaming Regulation
In most cases, retail prices have been set at or very close to the maximum level indicated by the Regulation. According to operators, the Roaming Regulation has a relatively strong impact in Luxembourg given the high percentage of foreign workers in the country. Operators are ensuring information and tariff transparency for voice and data roaming, as well as the implementation of the cut-off limits for the blocking of data roaming. They also propose specific tariff packages oriented towards roaming customers. Inadvertent roaming is still an issue in border areas.

Fixed

Market situation
2009 was characterised by a slight decrease in the state-owned incumbent's robust market share in terms of call volumes in the fixed telephony market (78.5% by call minutes as of December 2009 compared to 79.5% as of December 2008). The market share by revenue is confidential. Fixed voice traffic continued to decrease, representing still 57.5% of voice traffic as of December 2009, compared to 62% the previous year.

The provision of VoIP service linked with a DSL subscription is not offered by any operator in Luxembourg, while the EU average market share of VoIP operators by volume of traffic was 16.6% as of December 2009. Only certain cable operators were offering this service in 2010.

Regulatory issues

The incumbent's reference interconnection offer (RIO) of 2007 was still in force in 2010 for an indefinite period. While a draft RIO 2010 was subject to a public consultation in 2009, the NRA held a public consultation on a draft decision in May and June 2010 according to which it intended to reject the approval of the 2010 RIO. This decision was justified with reference to the unsatisfactory quality of documents provided by the incumbent, which led to delays and made it impossible to approve the RIO in time. No final decision was taken on this issue in 2010, however.

The existing reference line rental offer (RLO) 2007-2010 that was approved in 2008 was allegedly used by only one of the alternative operators in 2010. The other operators did not find the offer economically interesting due to both an insufficient retail margin, and the absence of a service level agreement.

Interconnection charges for terminating calls for local and single transit are still well above the EU average. While the EU average for local transit and single transit stood at 0.47 €c and 0.68 €c respectively as of October 2010, alternative operators in Luxembourg are charged for these levels at 0.73 €c and 0.96 €c, which marks only a slight decrease in comparison to the previous year.

In 2009, the Administrative Tribunal annulled particular provisions in the ILR's decision of 2007 which provided for the asymmetric regulation of the fixed call termination market. Following ILR's appeal, the higher Administrative Court upheld the first instance's ruling in July 2010, and the ILR's decision has thus become symmetric. According to the Court, the ILR failed to establish that the incumbent's predominance justifies the imposition of asymmetrical remedies. The Court also held that the incumbent's position on the market should be seen in the context of the size of the multinational operators that control alternative operators on the Luxembourgish market. The ILR was concerned by the risk stemming from the fact that its decision on mobile termination establishes a similar asymmetry as the contested decision on the fixed call termination market. This decision was not, however, subject to a legal challenge before the Courts.

The ILR planned to establish a new cost model in cooperation with external consultants for the next market analysis, taking into account the size of the Luxembourgish market. The ILR began reflecting on the introduction of the Bill & Keep model.

Broadcasting

Market situation

The situation in the broadcasting market remained stable throughout 2010 in comparison to previous years. While satellite TV had a penetration rate of approximately 25% in July 2010, cable still remained the most used platform, with a take-up by about 77% of households (no data on terrestrial broadcasting was available). As of July 2010, 5.8% of households had access to IPTV, compared to a rate of 3% from the previous year. It seems to be technically difficult for alternative operators to offer IPTV, as this service may only be provided on unbundled lines, and subject to sufficient capacity.

The incumbent envisages making available a transport service for IPTV-like services to alternative operators in multicast/broadcast mode on its VDSL network in 2011 via a commercial wholesale offer. Both parties have signalled that they will try to find a compromise on this issue. The broadcasting market is not regulated, however, as the incumbent does not hold a strong position.

Regulatory issues

In March 2010, the Administrative Court upheld the earlier ruling of the Administrative Tribunal, and decided in favour of the incumbent's appeals against two decisions of the Conseil de la Concurrence (Competition Council) of January and February 2008. The said decisions prohibited the incumbent from incorporating IPTV into its bundled offer until alternative operators were in a position to replicate this offer. The Administrative Court annulled the decisions because of the absence of a representative of the Ministry in charge of economy at the hearing prior to the adoption of these decisions.

HORIZONTAL REGULATION

Spectrum management

The amendment to the GSM Directive of 2009 that opened the 900MHz frequency band up for systems other than GSM was transposed in May 2010. In this context, the Luxembourgish authorities envisage the refarming of the 900 MHz frequency band in 2011. The ILR plans to launch a public consultation following the transposition of the telecoms package. All three active mobile operators have licenses for spectrum in the 900 MHz frequency band, two of which are valid until 2012 and one until 2021.

The debate on the digital dividend in Luxembourg was only slowly taking shape in 2010, and the frequencies for LTE have not yet been defined. Due to the country's geographical size and situation, Luxembourg will have to take into account the actions of its neighbours.

In order to implement the Commission's Decision of 2008 on the 2.5-2.69 GHz frequency band and to make this spectrum available, the Luxembourgish authorities launched a public consultation on the use of the band in December 2010.

In September 2010, the State Council was requested to deliver its opinion on the proposed modifications of the Frequency Plan. The proposed changes were aimed at incorporating four Commission decisions, namely Decision 2009/449/ EC on the selection of operators of pan-European systems providing mobile satellite services (MSS), Decision 2010/166/EC on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the EU, Decision 2010/267/EU on harmonised technical conditions of use in the 790-862 MHz frequency band for terrestrial systems capable of providing electronic communications services in the EU and Decision 2010/368/EU amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices[2].

Decision 2009/343/EC on the use of the radio spectrum for equipment using ultra-wideband technology in a harmonised manner in the Community, and Decision 2009/381/EC on harmonisation of the radio spectrum for use by short-range devices, were implemented in May 2010.

According to a study conducted for the Commission, not all of the necessary preparation has been made in Luxembourg at the end of the reporting period, which would facilitate the granting of an authorisation to the operators of systems providing mobile satellite services selected by the Commission in accordance with European Parliament and Council Decision No 626/2008/EC.

Rights of way and facility sharing

A new infrastructure inventory and a registry of infrastructure works are to be created within the framework of the national strategy for the development of next generation networks.

Some operators reported difficulties with the licences issued by the Ministry of Employment for the operation of 3G base stations on the grounds of health risks for persons working on the base stations. In addition, the Ministry of Employment seems to push for the collocation of infrastructure, which increases the combined output of the transmitters installed on one antenna, and thus prolongs the procedure for the issue of a permit (up to 12 months instead of 3 months).

Administrative charges

The ILR fixed the rate of the administrative tax on operators to cover the regulator's administrative and regulatory costs in 2011 by a regulation adopted in December 2010. Apart

2 The subsequently approved grand-ducal regulation was published on 25 February 2011.

from a fixed lump sum of €2500, the operators are to pay 0.7% of their turnover (compared to 0.5% in 2010 and 0.4% in 2009).

THE CONSUMER INTEREST

Consumer complaints

In June 2010, the Commission launched an infringement proceeding against Luxembourg concerning the obligation to ensure that a transparent, simple and inexpensive out-of-court dispute resolution procedure is available for dealing with disputes, involving consumers, related to issues covered by the Universal Service Directive. The Commission was concerned that the procedures which have so far been available to consumers of electronic communications services under national law in Luxembourg were too costly in comparison to the amounts that are typically at stake. The ILR is to define a new and more appropriate procedure in this regard which will apply exclusively to the telecoms sector on the basis of the new Telecom Law[3].

Tariff transparency and quality of service

The consumer association reported that the major part of consumer complaints received concerned billing issues, and notably the lack of transparency of invoices.

Regarding the quality of service, the ILR has followed the wholesale market as it claims that there is no legal basis for monitoring the retail market. In the market analysis launched at the end of 2010, the ILR has requested a survey of consumer satisfaction with regard to broadband products.

Number portability/switching

Mobile number portability increased steadily in 2010. There were 107 073 ported mobile numbers as of October 2010, which represents 17 199 new ported numbers since October 2009. Since the introduction of this facility in Luxembourg, approximately 14.8% of all mobile numbers have been ported. Mobile numbers are usually ported within one and a half days through an automated system. The service is free for the client.

Fixed number portability is less frequent, with 13 411 fixed numbers ported as of October 2010, which marks an increase of 2 128 numbers in comparison with the previous year's figures. Following from the activity of the working group established by the ILR, the incumbent launched a database in 2010 that allows the alternative operators to automatically obtain the clients' numbers in order to identify the candidates for porting. In addition, basic data on the numbers is available on the ILR's website since 2010.

Net neutrality

There has been no discussion on net neutrality in Luxembourg, and mobile operators claim that they do not block VoIP traffic on their networks.

Universal service

While no universal service provider has been designated, the incumbent provides universal service on a voluntary basis. It claims that its DSL network provides 100% of households with least 5 Mbps Internet access. Operators in Luxembourg do not offer social tariffs.

3 The respective regulation was adopted by ILR on 4 April 2011.

European emergency number 112

As 112 appears to be accessible from fixed (including public pay telephones) and mobile phones (using the national mobile network or by national and international roaming), no major problems have been signalled. VoIP operators providing Publicly Available Telephone Services (PATS) are required to ensure that their users can also access 112. Caller location information is available automatically for mobile phones with every 112 call (push mode) including international roaming, and upon request by the emergency services for fixed telephones (pull mode, available in less than one second). The localisation of a mobile caller refers to the last cell in which the phone was used.

Harmonised numbers for harmonised services of social value (116)

Since 2009, the 116 111 number (helpdesk line for children) has been assigned to an association that operates a similar service under the 12345 telephone number. This service was reportedly not yet accessible, however, at 116 111 in 2010. While the remaining 116000, 116006, 116117 and 116123 numbers have not yet been assigned, information has been published that the numbers are available for the provision of services and that applications may be submitted.

e-Privacy

In July 2010, Luxembourg adopted a law and a regulation, amending the law on the protection of privacy in the electronic communications sector, and thereby transposing the Data Retention Directive. It has also been clarified that the operators are required to keep the personal data regarding traffic for at least 6 months, instead of 12 months, for the purpose of criminal law enforcement.