

# LUXEMBOURG

## INTRODUCTION

Broadband penetration continued to increase in 2009. In the mobile sector, the incumbent confirmed its strong position, while reinforcing its predominance in the broadband and fixed sectors thanks to its bundled offerings that became a standard on the residential market, and continued to grow on the corporate market. IPTV has become a common product in the incumbent's marketing. Alternative operators using the incumbent's wholesale line rental are forced to operate with a small margin in order to remain competitive, whereas they are not able to offer a competitive IPTV service.

The National Regulatory Authority (NRA) did not take any major decision on the regulation of markets in 2009. So far, the incumbent has provided alternative operators neither with optical fibre nor with VDSL access. There are increasing concerns regarding the migration to next generation networks (NGN), in particular with respect to the availability and the conditions of access to NGN by alternative operators, and the timeliness of desirable regulatory remedies. The discussed merger of the mobile and fixed divisions of the incumbent, and the existing lack of accounting separation of individual divisions of the incumbent, raise doubts as to their potential impact on effective competition. The incumbent's accounts are now available on its webpage, although only the accounts up until the year 2006.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Neither the legislator nor the Luxembourg NRA, the *Institut Luxembourgeois de Régulation* (ILR) adopted any regulatory measure that would significantly change market conditions. The NRA did not notify any market analysis to the Commission in 2009.

### Organisation of the NRA

Generally speaking, the perception of alternative operators is that the ILR is acting independently. The infringement proceedings launched by the Commission in January 2008 on the grounds of a lack of effective structural separation required between the regulatory functions and those functions associated with the ownership or control of undertakings providing electronic communications networks and services were closed in early 2009 following the implementation of structural changes in the Luxembourgish administration.

In order to overcome its limited resources, the ILR hired an expert in 2009, who has experience from the Belgian regulatory authority. Structurally, a new legislative measure entered into force, under which the ILR's personnel will be increased in the course of the following years starting in 2010. It should be noted that the ILR is in charge of several economic sectors: electronic communications networks and services, electric energy transport and distribution, natural gas transport and distribution, postal services and, with the future adoption of the appropriate law, rail networks.

The ILR has been granted power under article 108bis of the Constitution to take "*règlements grand-ducaux*", where the measure is addressed to non-individually defined persons, as

opposed to decisions addressed individually. Both règlements and decisions can be contested before administrative Courts.

The cooperation between the ILR and the Luxembourgish competition authority (*Conseil de la concurrence*) does not seem to raise any concerns, the issue of the incumbent's IPTV offer being a recent case they cooperated on.

### **Decision-making**

The ILR has started the delayed second round of market analyses with public consultations, focusing on the market for wholesale physical network infrastructure access (LLU) and the market for wholesale broadband access. Operators expressed their criticism with respect to current regulatory loopholes.

On the enforcement side, in March 2009 the ILR took a decision against the incumbent, temporarily banning the commercial exploitation of services based on the VDSLx standard, as a sanction for delays in submitting proposals for reference offers for 2009 and 2010. This ban included all retail services of the incumbent, and ended on 31 December 2009.

Alternative operators have access neither to optical fibre nor to VDSL of the incumbent. This question is crucial for their competitiveness in the future, but also in the present, since a number of commercial zones in Luxembourg already are equipped only with fibre infrastructure. Alternative operators express concerns that the remedies may come at a point when it will be difficult to compete with the incumbent, which will since long be established on the fibre access market. While the second round of market analyses may address access to optical fibre, the ILR prefers to finalise its other pending issues. The incumbent has published an offer that was subject to consultations in 2009.

Certain alternative operators claim that the incumbent's plans for deploying fibre network are not transparent. Some of them also disapprove of the architecture the incumbent has chosen for the deployment of its fibre network in 30 000 households so far (Gigabit Passive Optical Networking - GPON), which would not allow for effective competition on such a network in the future.

## **MARKET AND REGULATORY DEVELOPMENTS**

The total revenues of the Luxembourg electronic communications sector were €506 million as of 31 December 2008. The total value of tangible investments in electronic communications networks in 2008 was €121 million, 26% more than in 2007. The incumbent invested approximately €89 million in fixed telephony networks, while alternative operators invested only around €7 million. The investments by mobile operators amounted to €25 million in 2008, an increase of €4 million, compared to previous year's figure.

The operator that was created in 2006 to promote dark fibre from 2008 and that is wholly owned by the State of Luxembourg became operational in June 2009. Its mission is to build and operate national and international fibre networks, and Internet related data and access centres in order to increase Luxembourg's IP connectivity. Presented as part of a package of measures to address the economic downturn, the government has decided to accelerate the development of the infrastructure and decided that the new operator should invest €100 million in the coming three years. Several operators use the dark fibre and data centers of the new operator to provide their services, including one new operator on the retail market that entered the corporate market. As regards the fixed incumbent operator, it was to invest €74

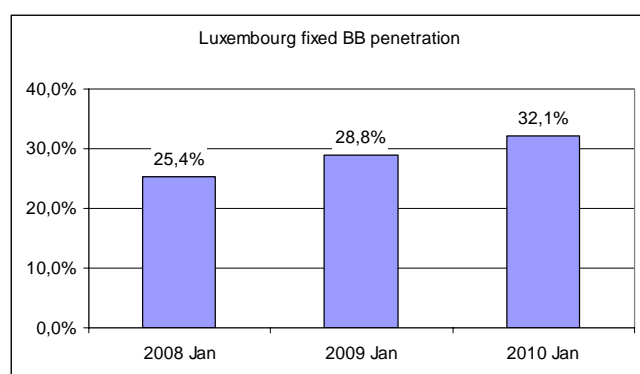
million more in fibre in 2009 than initially envisaged, as the State renounced its 2009 dividends. According to the governmental plan, the complete FTTH coverage in Luxembourg should be reached by 2018.

Alternative operators criticised the incumbent's "all-in-one-shops" combining postal and financial services with electronic communications services which, arguably, is considered as bringing the incumbent into frequent contact with many potential clients.

The consumers in Luxembourg increasingly opt for bundled offers combining television, broadband and fixed telephony and less often also mobile. As of December 2008, almost 23% of the population used bundled offers.

## Broadband

### *Market situation*



Luxembourg's broadband penetration rate increased by 3.3 percentage points since January 2009 and reached 32.1% in January 2010, which is well above the EU-27 average of 24.8%. It has the third highest broadband penetration rate of the EU. The incumbent's share of the broadband DSL lines stayed almost unchanged at 79.7% as of January 2010 compared to 80% as of January 2009.

The market share of the alternative operators' DSL lines has increased slightly and reached 20.3% in January 2010, which represents an increase of 0.3 percentage point since January 2009.

The incumbent had 67.2% market share (76.1% if resale of lines of alternative operators is included) of broadband lines in comparison with alternative operators' broadband lines market share of 32.8% in January 2010. The number of resale DSL lines represented 52.8% of the total of the alternative operators' DSL lines. In January 2010, 92.1% of the connections were offering speed between 2 MBps and 10 MBps, while the remaining 7.9% were offering more than 10 MBps.

As regards the LLU retail access market, the number of fully unbundled lines supplied to alternative operators continued its increase, reaching 12 604 as of January 2010, in comparison to 10 170 lines as of January 2009. The cost-orientation obligation has not yet been implemented in Luxembourg. The price charged for LLU has not changed from last year and the connection fee remains high, for both full LLU (€91.1) and shared access (€157.4) as at October 2009. Alternative operators have been requesting since several years that this connection fee be brought closer to the EU average (i.e. €43.3 for full LLU and €46.4 for shared access).

### *Regulatory issues*

In December 2008, the ILR extended the validity period of the incumbent's reference unbundling offer (RUO) and reference collocation offer (RCO) for 2007-2008 beyond 31 December 2008, for an unspecified period of time. In April 2009 the ILR modified certain service levels for LLU, concerning in particular the provisioning time for delivery of LLU by

the incumbent, and re-establishment time in case of faults. The incumbent does not have an obligation to propose access to its fibre network, since it is not included in RUO 2007-2008. The draft RUO and RCO 2009-2010 were subject to public consultations in 2009. The ILR explained the delays by late submission of the incumbent's proposals. The ILR aims at first to determine the labour cost per hour that will also serve for other market analyses.

In March 2009 the ILR modified its regulation concerning the wholesale broadband access market by imposing on the incumbent the obligation to set up cost-oriented tariffs on the basis of a cost-model of an efficient operator in situations, where the absence of retail price does not enable it to calculate the "retail minus" rate. Although the Commission had encouraged the ILR to implement the cost-orientation obligation, the ILR claimed that in the absence of an appropriate cost model this obligation would not ensure avoidance of excessive wholesale rates, and preferred to use "retail minus" rates wherever possible.

The Reference DSL Offer (RDSLO) 2009-2010 was subject to public consultations in 2009. Alternative operators criticised the proposed tariffs, and demanded a higher number of different profiles in order to be able to offer more than mere reselling of the incumbent's retail services. They also called for cost-oriented tariffs, but the incumbent insisted on the "retail minus" rate. Alternative operators in 2009 continued to regret non-existence of a regulated bitstream offer. However, RDSLO should be technologically neutral so that it should be applicable also to bitstream and VDSL. On the other hand, the incumbent refused that the offer should comprise IPTV. Alternative operators would have liked to resell Ethernet based services to their customers, but they did not consider the incumbent's commercial proposal economically viable.

## **Mobile**

### *Market situation*

As of October 2009, the penetration rate for mobile was 142.1%, the same as the last year's figure and well above the EU average of 121.9%. As of 1 October 2009, the number of mobile subscribers was approximately 701 000, with 39.3% pre-paid subscribers and 60.7% monthly paid subscribers.

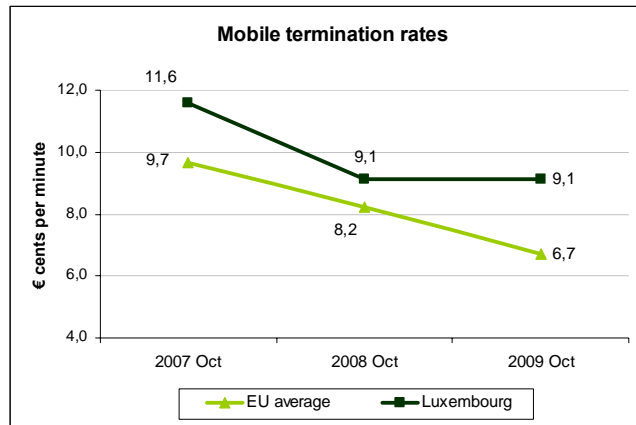
Generally speaking, the sector can be characterised as quite competitive. The incumbent has a strong position on the market, based on traffic, while the first and second competitors' market shares are increasing.

The penetration rate for mobile broadband based on data cards was rather low at 1.3% as of January 2010 (the EU average being 5.2%). The second and third mobile operators, having new shareholders, have announced increased investment and new products in order to compete with the incumbent. Owing to non-exclusive distribution of specific types of smart phones in Luxembourg by all three operators, the traffic of data increased tenfold in 2008, according to the incumbent. However, voice still generates the main part of revenues.

### *Regulatory issues*

The two licensees which were granted 3G licences in 2008 are not yet operational. The licence conditions do not contain strict obligations for the operators in terms of coverage.

While the ILR's decision of May 2006 set out the glide-path for mobile termination rates with the last cap reduction in July 2008, no new caps have been introduced since, neither has the ILR developed a new method that was expected to replace the previously used international benchmarking.



### *Roaming Regulation*

According to operators, the Roaming Regulation has had an impact in Luxembourg given that roaming is often used by the consumers. In most cases the retail prices were set at or very close to the maximum level indicated by the Regulation. Operators are ensuring information and transparency of tariffs for voice and data roaming. Roaming customers also have the possibility to opt for special tariffs including ones that comprise data. On the other hand, customers are often unaware of costs of data transfers when roaming, and inadvertent roaming is still an issue in border areas. The operators seemed ready to put in place a new system on the basis of the amended Roaming Regulation, which should reduce the risk of "bill shocks" by warning messages and blocking of data roaming when certain thresholds have been exceeded.

## **Fixed**

### *Market situation*

The year 2008 was characterised by only a slight decrease in the state-owned incumbent's robust market share in terms of call volumes in the fixed telephony market (79.5% by call minutes as of December 2008 compared to 80.3% as of December 2007). The market share by revenue is confidential. Concerning the distribution of voice traffic in terms of total call volume, fixed voice traffic continued to decrease, as it represented 62% of voice traffic, while mobile voice traffic accounted for 38% as of December 2008, compared to a ratio of 69% versus 31% the previous year.

The service of VoIP linked with a DSL subscription is not offered by any operator in Luxembourg, in contrast with the relative importance of this service in some other EU countries (EU average market share of VoIP operators by volume of traffic was 14.5% as of December 2008).

The incumbent offers free on-net calls as a part of its bundled offer. Alternative operators criticise this product, since they are not able to replicate it given that they have to pay interconnection fees to the incumbent. Having been notified, the ILR did not address this issue.

### *Regulatory issues*

The reference interconnection offer (RIO) of 2007 is still in force for an indefinite period. RIO 2010 was subject to public consultations in 2009. Concerning the reference line rental offer (RLO), alternative operators consider the existing offer insufficient for the creation of a competitive environment, due to an insufficient retail margin (12.7%) that is, moreover, not set to change significantly in 2010, and due to 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 0.52 €-cents and 0.79 €-cents respectively as of October 2009, alternative operators are charged for these levels at 0.76 €-cents and 1 €-cent, being the same levels as the previous year.

In 2009 the Administrative Court took four decisions on appeals of the incumbent against the ILR's 2007 decisions. The decision regarding the reference interconnection offer (RIO) of 2007 was annulled on the grounds that the ILR was supposed to verify the incumbent's offer and impose a modification of rates and not to impose the rates directly. The ILR shortly afterwards adopted a new règlement whereby it dealt with this problem by approving the RIO 2007 again, with the requested formal correction, and moreover deciding that it remains in force for an indefinite period of time. The Court also annulled particular provisions of the ILR's decision regarding the fixed call termination market from 2007, because the ILR imposed different remedies upon the incumbent than upon the alternative operators and unjustly imposed upon the incumbent a burden of proof concerning cost orientation vis-à-vis all third persons, and not just vis-à-vis the ILR. The ILR appealed against the verdict and its decision remains in force. The same reason (burden of proof concerning cost orientation) led the Court to annul one provision of the ILR's decision from 2007 regarding fixed call origination market. The ILR decided not to appeal against this Court decision. Lastly, the ILR's decision regarding the conditions of interconnection was upheld by the Court.

## **Broadcasting**

### *Market situation*

The situation remained stable in comparison to previous years. Use of satellite TV increased by one more percentage point compared to the previous year, and had a penetration rate of 25% as of July 2009. So far only 3.0% of households had access to IPTV as of July 2009. Cable still remained the most used platform, used by 77% of households (no data on terrestrial broadcasting was available).

### *Regulatory issues*

The incumbent succeeded in May 2009 with its appeals against two decisions of the President of the Conseil de la Concurrence (Competition Council) of January and February 2008, respectively. The first decision prohibited the incumbent to incorporate IPTV into any bundled offer until alternative operators were in a position to replicate this offer on the basis of a non-discriminatory and transparent network access offer from the incumbent, and the second decision imposed a penalty on the incumbent for non-compliance with the initial decision. The Administrative Court annulled the decisions on the ground that the Competition Council failed to timely communicate to the incumbent the harm that was allegedly caused by its anti-competitive conduct. The Competition Council appealed the decision of the Administrative Court. Both disputed decisions remain in force while the case is pending.

In the meantime, the incumbent markets IPTV outside the former package, but subscription to this product is in practice bound with an xDSL subscription under conditions which alternative operators are not able to replicate. According to the ILR, regulation of IPTV is not expected in the short term.

## **Horizontal regulation**

### *Spectrum management*

In 2009, the amendment to the GSM Directive allowed the use of the 900MHz frequency band also for systems other than GSM. Refarming of the 900MHz frequency band in Luxembourg is complicated by the country's geographical conditions and the necessity to follow actions of its neighbours. Mobile telephony licences have been granted until 2012. In practice, the 900MHz frequency band is used for mobile telephony services only in the countryside, whereas urban areas are covered by the 1800MHz frequency bands.

There has been no major debate so far on the digital dividend in Luxembourg. Operators declare to be interested more in the 900MHz frequency band than in the digital dividend.

### *Implementation of spectrum decisions*

The implementation of the Commission spectrum harmonisation decisions has advanced further in 2009. The remaining Decision 2008/671 on the harmonised use of radio spectrum in the 5875-5905 MHz frequency band for safety-related applications of Intelligent Transport Systems (ITS), and Decision 2008/673 on the use of the frequency band 169.4-169.8125 MHz (updating the ex ERMES paging system decision) are now declared by Luxembourg to be implemented in the Frequency Plan modified in March 2009. The same applies to Decision 2008/411/EC on the harmonisation of the 3400 - 3800 MHz frequency band for terrestrial systems capable of providing electronic communications services, and Decision 2008/477/EC on the harmonisation of the 2500-2690 MHz frequency band for terrestrial systems capable of providing electronic communications services. Luxembourg declared them to be implemented by the modification of the Frequency Plan of September 2009. The Commission services are looking into the matter in the light of further information received from Luxembourg on the Commission's request in January 2010.

Regarding Decision 2009/343/EC of 21 April 2009 amending Decision 2007/131/EC on allowing the use of the radio spectrum for equipment using ultra-wideband technology in a harmonised manner in the Community, and Decision 2009/381/EC of 13 May 2009 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices, their deadlines for implementation were 30 June 2009 and 1 November 2009 respectively, but Luxembourg has not yet provided information thereon.

### *Rights of way and facility sharing*

*Administration des ponts et chaussées*, a public body in charge of civil engineering works financed by the State, publish its planned projects on its webpage, and so do the municipalities. Alternative operators continue to regret that the government has not delivered on its promise to put in place a centralised webpage that would inform on all civil engineering building permits. Alternative operators also claim that the information on the works is not useful for them unless it also includes an indication of costs for the operators, which is generally not the case. It is therefore mostly the incumbent that uses the public works as an opportunity to deploy its network. Furthermore, the relevant Service of Media and

Communications of the Ministry of State is aiming to put in place on the municipalities level a separation of authorities that decide and permit the deployment of local networks and that actually deploy and operate the networks.

In July 2009 the Administrative Court of Appeal dismissed a joint appeal of the incumbent and the State and confirmed the decision of the Administrative Court of November 2007, holding that placement of mobile network transmitters in the given case required to be subject to relatively complex *commodo et incommodo* permit procedure as their combined output exceeded the limit of 2 500 W. The impact of this decision on the installation of mobile signal transmitters elsewhere in Luxembourg remains to be seen.

## **THE CONSUMER INTEREST**

### **Tariff transparency and quality of service**

The consumer association is not aware of any major problems related to tariff transparency or to period of validity of prepaid mobile cards credits, given that this period was recently extended. Consumers predominantly complain about invoicing issues, and about certain operators' methods of recovery of debts.

### **Universal service**

While no universal service provider has been designated, the incumbent provides universal service on a voluntary basis.

### **Number portability**

Mobile number portability increased steadily in 2009. There were 89 874 ported mobile numbers as at the end of September 2009 which represents 19 800 new ported numbers since the end of September 2008. Since the start of portability in Luxembourg, approximately 12% of mobile numbers have been ported. Mobile numbers are usually ported within one day through an automated system developed in assistance with the consumer association, but the process can take four days according to the ILR. The service is free for the clients changing operators while the accepting operator pays €6 per number to the Economic Interest Group Telcom that is in charge of the system.

Fixed number portability is less frequent, with 11 283 fixed numbers ported as at the end of September 2009, which is an increase of 1 826 numbers in comparison with figures as at September 2008. There is no automatic system or central database in place. Alternative operators criticise the incumbent for requiring clients' invoicing numbers in order to identify the candidate for porting. The ILR is aiming to make the incumbent create a database that would allow the alternative operators to get the clients' numbers automatically without having to get back several times to the client.

### **Consumer complaints**

The provisions of the Universal Service Directive concerning effective out-of-court resolution of disputes between consumers and operators are not yet effectively implemented in Luxembourg. The consumers who do not want to go directly to Court are currently recommended to address the Mediation Center of the Luxembourgish Bar, which is, however, too costly to be considered suitable for such kind of disputes. The concerned actors held



discussions in the end of 2009 about a new procedure inspired by the one that is in place in the insurance sector. The Commission is following this issue closely.

### **European emergency number 112**

No major problems have been signaled, since 112 appears to be widely accessible from fixed (including public pay telephones) and mobile phones (using the national mobile network or by national and international roaming). VoIP operators providing Publicly Available Telephone Services (PATS) are required to ensure that their users can access 112 as well. 112 calls are handled by the *Administration des Services de Secours* (Rescue Services Agency) under the Ministry of Internal Affairs. There is an additional emergency number 113 for national police calls. The 112 PSAP (Public Safety Answering Point) in Luxembourg is able to handle calls in Luxembourgish, French, German and English.

Calling Line Identification (CLI) is available automatically for mobile phones with every 112 call (push mode), and upon request by the emergency services for fixed telephones (pull mode, available in less than one second). Localisation of a mobile caller refers to the last cell in which the phone was used. The national operators provide the PSAP with the maps of their coverage in order to enable the localisation. In addition, for mobile subscribers registered to directory services, the emergency services could obtain their address.

### **Harmonised numbers for harmonised services of social value (116)**

In June 2009, the ILR stated that it had received a demand for attribution of the 116 111 (helpdesk line for children). In October 2009, the ILR assigned the number to Caritas – Jeunes et Familles a.s.b.l. that already operates a similar service known as Kanner- Jugendtelefon under telephone number 12345.

### **ePrivacy**

In November 2009, the Commission delivered to Luxembourg a reasoned opinion regarding non-transposition of the Data Retention Directive (Directive 2006/24/EC), given that no national measures that would entirely implement the directive had been adopted so far.

However, the application of the law on data protection brings about an additional burden for the operators, who are not entitled to retain personal data regarding traffic for more than six months after the payment of the invoice for such traffic, whereas they are required to keep the data for at least 12 months for the purpose of research and criminal law enforcement. In the end of 2009 the Government was discussing a new legislative instrument that should address this issue, while simultaneously implementing the Data Retention Directive.