085446/EU XXIV. GP
Eingelangt am 19/06/12

COUNCIL OF
THE EUROPEAN UNION

Brussels, 19 June 2012

11583/12
ADD 5

TELECOM 129
AUDIO 67
COMPET 455
RECH 293
MI 445
ENER 322
DATAPROTECT 79

COVER NOTE

from:	Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director
date of receipt:	18 June 2012
to:	Mr Uwe CORSEPIUS, Secretary-General of the Council of the European Union
No Cion doc.:	SWD(2012) 180 final
Subject:	COMMISSION STAFF WORKING DOCUMENT "DAE -Scoreboard 2012" (Vol. 6/6)

Delegations will find attached Commission document SWD(2012) 180 final. (Vol. 6/6)

Encl.: SWD(2012) 180 final

EUROPEAN COMMISSION

Brussels, 18.6.2012
SWD(2012) 180 final

Vol. 6/6

COMMISSION STAFF WORKING DOCUMENT

DAE-Scoreboard 2012

COMMISSION STAFF WORKING DOCUMENT

DAE-Scoreboard 2012

Country Chapter (Part 3)-2011 Telecommunication Market and Regulatory Developments

EUROPEAN COMMISSION
Information Society and Media Directorate-General

Electronic Communications Policy
Implementation of Regulatory Framework

18 June 2012

THE NETHERLANDS

2011

Telecommunication Market and Regulatory Developments

THE NETHERLANDS

1. MAIN MARKET & REGULATORY DEVELOPMENTS: BEST PRACTICES AND CHALLENGES

Development of the sector

The Netherlands in one of the few Member States where **revenues** in the telecom sector grew in 2010. The strongest growth was in the mobile sector, in particular in mobile broadband. The Netherlands has also one of the highest **investment**-to-revenue ratios in the European Union, at 24%, being almost double the EU average.

The incumbent operator continues to be the dominant player on the **fixed market,** despite a decreasing share of the residential market (from 60-65% to 55-60%). In general, the number of retail fixed lines has further decreased, with the exception of low capacity Voice-over-Broadband lines, which have increased. A consolidation trend is noticed as concerns alternative operators: their number has decreased, while their overall market share has increased.

Strong infrastructure-based competition continues to characterise the **broadband market.** While the dominating technology is still DSL, with 57% of the broadband lines (a percentage considerably lower than the EU average), the (already high) number of cable broadband lines and of fibre connections are on the rise. The highest increase is in fibre optic lines and is mainly undertaken by a joint venture in which the incumbent operator has a participation of 41%.

The Dutch **mobile market** has remained the most lucrative of the electronic communications market, with a strong increase in data connections (over 50%), mainly linked to the high penetration of smart phones. New billing methods have been analysed in this context, also against the background of a specific net neutrality amendment introduced by the Lower Chamber of the Dutch Parliament in the Dutch Telecommunications Act. The market shares of the three major mobile operators have remained fairly equal, despite a slight decrease in the market share of the largest player.

As regards the **broadcasting** market, data shows that the importance of analogue television is decreasing: the number of analogue subscriptions dropped by 30% over the past year. Recent DSL upgrades have allowed the incumbent to gain customers for IPTV services: currently more than 72% of the Dutch customers watch (also) digital TV.

Finally, **bundled services** continue to gain popularity among Dutch consumers, with an increasing number of three and four-play subscriptions.

Progress in broadband deployment and take-up

Against the background of strong infrastructure competition, the Netherlands has maintained a front-runner position in Europe as regards fixed broadband penetration (39.3% as compared to the EU average of 27.2% in July 2011). Most of the connections are relatively fast, with over 19.3% offering speeds above 30MBps. Mobile broadband penetration is also above the EU average (39.3% as compared to 34.6%), although not as high as in the Scandinavian countries. A coverage rate of 99% is assumed, higher than the EU average. The Dutch Digital Agenda is gaining ground and an implementation programme will follow shortly. The Netherlands seems therefore to be well on track towards reaching the targets of the Digital Agenda.

Independence and effectiveness of the NRA

The Dutch NRA, OPTA, has continued to expand its tasks, mainly in the field of consumer protection, in spite of being subject to budget cuts. A new savings round is foreseen in the context of its planned merger with the Dutch Competition Authority and with the Consumer Authority.

An entire range of market analyses have been proposed by OPTA in 2011 and at the beginning of 2012. Two of these decisions are final and they concern local loop unbundling, with the exception of Fibre-to-the-Office (FTTO), and the television market. New draft decisions concerning the FTTO market, the Wholesale Broadband Market including Leased Lines, have been notified to the Commission and are subject to ongoing Phase II procedures.

Implementation of the framework

The Netherlands has not transposed the revised regulatory framework within the deadline set by the EU legislator (25 May 2011). Infringement proceedings were therefore ongoing by the end of the reporting period. While a draft law was tabled to the Parliament in November 2010, the discussions in the Parliament have proved to be lengthy and difficult. Moreover, a series of amendments introduced by the Lower Chamber of the Parliament in relation to net neutrality, cookies and access to cable networks stirred extensive debates and controversy[1].

Spectrum management

In 2011, the Dutch authorities have prepared a major, multiband auction, scheduled for October 2012 and due to release large amounts of spectrum in the 800 MHz, 900MHz, 1800 MHz, 1900 MHz, 2100 MHz and 2600 MHz frequency bands.

Citizens and consumer protection

New consumer protection rules were introduced in 2011, concerning premium SMS billing. Furthermore, net neutrality and e-privacy have been subject to extensive debates in the Netherlands in 2011.

[1] The law was adopted by the Dutch Senate on 8 May 2012.

2. NATIONAL REGULATORY AUTHORITY

The Dutch NRA, OPTA, has continued to expand its tasks, mainly in the field of consumer protection, in spite of being subject to budget cuts. A new savings round is foreseen in the context of its planned merger with the Dutch Competition Authority and with the Consumer Authority.

The Dutch National Regulatory Authority (NRA), OPTA (*Onafhankelijke Post en Telecommunicatie Autoriteit*) has continued to expand its tasks, in spite of repeated budget cuts. After a 20% budget cut agreed for the period 2008-2011, new savings are envisaged in the context of OPTA's merger with the Dutch Competition Authority (NMa) and the Consumer Authority, which is planned to become effective on 1 January 2013[2].

In 2011 several market regulation decisions from the 2008 market analyses round were annulled by the Court, creating further uncertainty in the market. OPTA has, in consequence notified new decisions, as described in the sections below.

OPTA's decisions can be appealed at a Trade & Industry Appeal Tribunal called *College van Beroep voor het Bedrijfsleven* (CBb). This Tribunal has previously overturned a relatively high number of decisions made by OPTA, often judging on the merits of the cases. The Tribunal has also taken a number of controversial decisions, without referring questions on the interpretation of EU law to the European Court of Justice. There is still a large backlog of cases. Nevertheless it appears, that the Tribunal has initiated actions to accelerate the appeals mechanism.

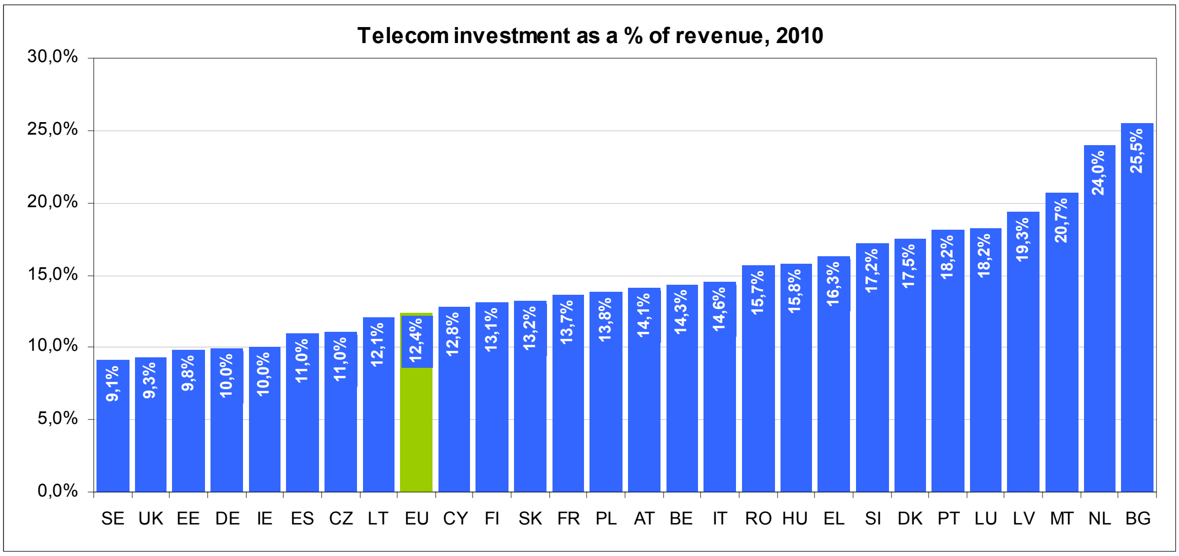
While there is an increased pressure to prioritise and gain efficiency, OPTA has continued to dedicate great attention to consumer protection.

3. REVENUES AND INVESTMENTS

The Netherlands in one of the few Member States where revenues in the telecom sector grew in 2010. The strongest growth was in the mobile sector, in particular in mobile broadband. The Netherlands has also one of the highest investment-to-revenue ratios in the European Union, at 24%, being almost double the EU average.

---

[2] According to the draft Institutional Law, tabled by the Government to the Dutch Parliament in February 2012, the newly created Authority for Consumer and Markets would take the form of a "small" independent administrative body, without legal personality and with personnel "borrowed" from the Ministry of Economic Affairs. Moreover, the Minister would have the ability to annul decisions of a general nature, and on grounds of lack of competence. It should be noted that currently the Dutch Competition Authority has such a status and that political interference has so far not been an issue, with its independence not being put into question. Nevertheless, if adopted, these changes would represent a step back in OPTA's independence, compared to the present situation where OPTA has legal personality and its own personnel and where the Minister hardly has any say over its decision-making process. This shift seems surprising against the background of the reinforced independence of NRAs through the revised EU electronic communications package.



Source: Commission services

The Netherlands is one of the relatively few Member States where the revenues in the telecom sector grew in 2010, although the growth was rather modest, at 1.3%. The investments on the other hand grew with 4.9% in 2010, generating an investment to revenue ratio of 24%, the fourth highest in the European Union, almost double the EU average of 12.2%.

Both in 2009 and in 2010, over 53% of the revenues came from the mobile sector, with over 33% from fixed and over 11% from pay TV. All revenues had a modest and proportionate growth in 2010.

The mobile market is the most lucrative one, with the increase in revenues mainly due to the increased uptake of mobile broadband. Nevertheless, average revenues decreased in 2010 compared to 2009: the average revenue per minute decreased with 2%, and the average revenue per user decreased with 26% in 2010. Nevertheless, both figures are significantly above the EU averages.

According to figures published by OPTA representing the first three quarters of 2011[3], the number of mobile connections has kept increasing, and the mobile sector is once again generating the highest revenues in the electronic communications sector. The largest and most dynamic part of this revenue growth is coming from data traffic. Data revenue grew by over 33% within one year, as compared to an increase of 1.8% in voice revenues, while the overall growth figure for the sector was 5.5%. Data revenue also surpassed SMS revenues for the first time in absolute terms. On the other hand, the revenues in the fixed market decreased by 0.8% both in the low capacity, and in the high capacity lines.

4. BROADBAND

Against the background of strong infrastructure competition, the Netherlands has

[3] http://www.opta.nl/en/news/all-publications/publication/?id=3553

maintained a front-runner position in Europe as regards fixed broadband penetration (39.3% as compared to the EU average of 27.2% in July 2011). Most of the connections are relatively fast, with over 19.3% offering speeds above 30MBps. Mobile broadband penetration is also above the EU average (39.3% as compared to 34.6%), although not as high as in the Scandinavian countries. A coverage rate of 99% is assumed, higher than the EU average. The Dutch Digital Agenda is gaining ground and an implementation programme will follow shortly. The Netherlands seems therefore to be well on track towards reaching the targets of the Digital Agenda.

A new decision concerning Local Loop Unbundling excluding the FTTO is in force since 1 January 2012. New draft decisions concerning the FTTO market, the Wholesale Broadband Market, including Leased Lines have been notified to the Commission and are subject to ongoing Phase II procedures.

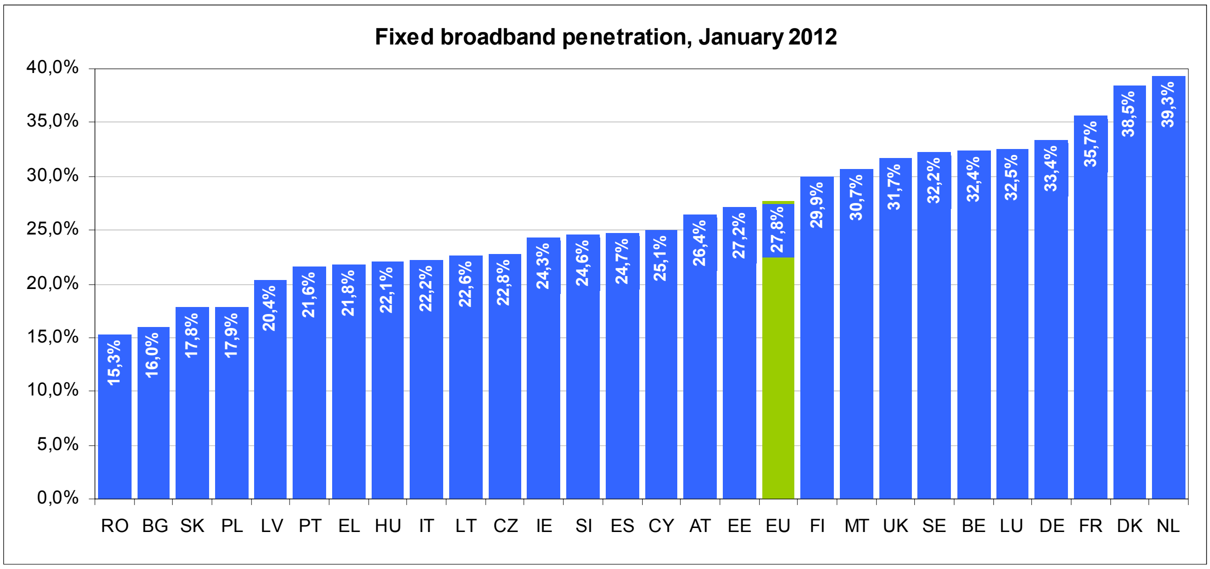
4.1 Market situation & Regulatory developments

The Netherlands has maintained a front runner position in Europe as regards fixed broadband penetration, with a percentage of 39.3% in July 2011, high above the EU average of 27.2%. The growth in broadband penetration was 0.7%, less than half of the EU average, thus indicating saturation of the market.

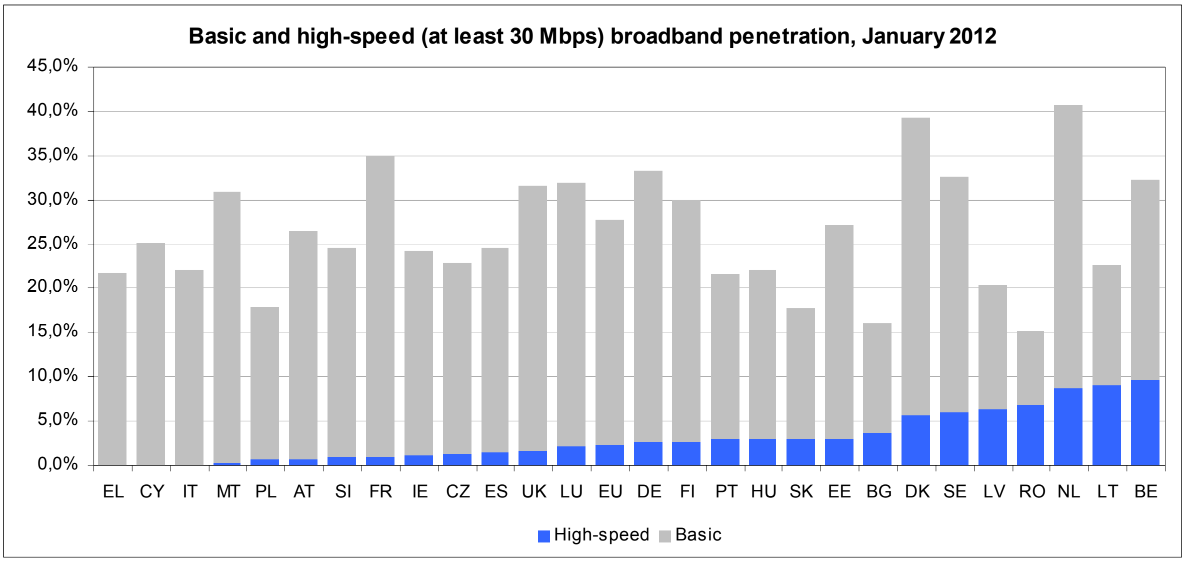
The dominating technology is still DSL, though to a lesser extent than in other Member States: 57% of the broadband connections are DSL, which is significantly below the EU average of 77%. This difference is explained largely by the high number of cable broadband lines (41% as compared to the 16% EU average). Moreover, the number of DSL connections is decreasing, while the number of cable connections and fibre connections has been increasing, with the highest increase being in fibre-optic connections: from 569000 homes connected in June 2010 to 768000 in June 2011[4].

The strong footprint of cable companies also explains the relatively high proportion of broadband lines offered by new entrants (58%), compared to the 42% offered by the incumbent. The incumbent remains, nevertheless, the largest player in broadband.

[4] idem 2.

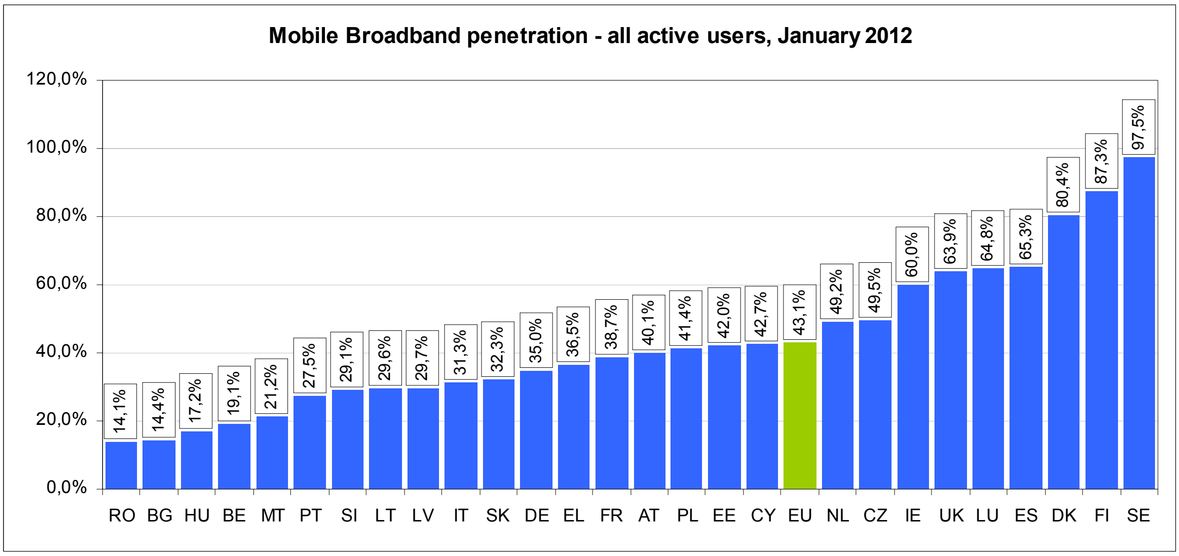


Source: Communications Committee



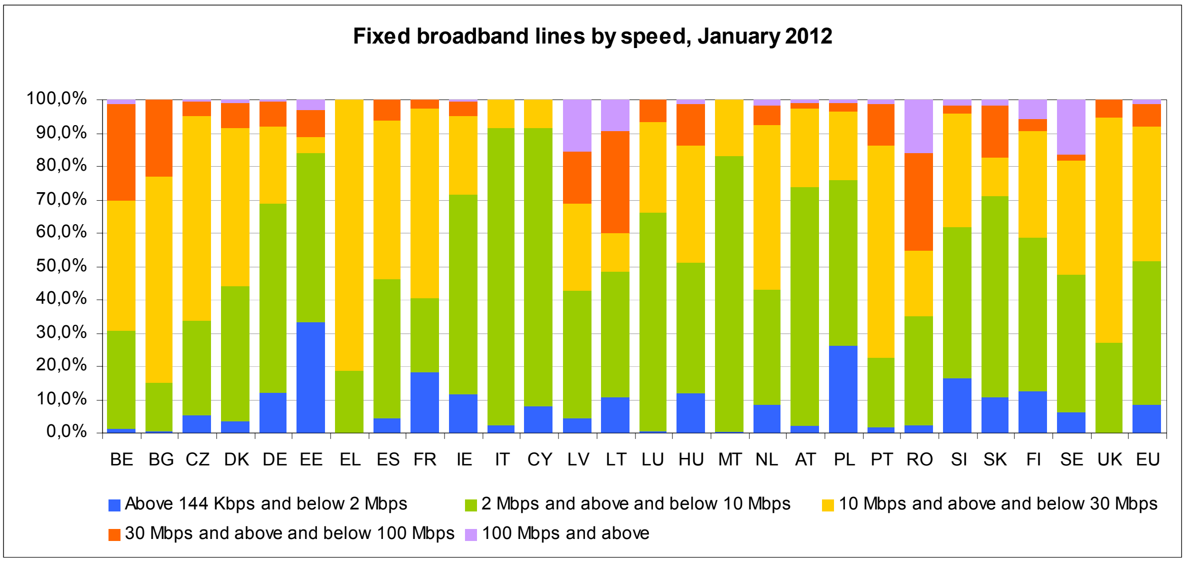
Source: Communications Committee

The figure for mobile broadband penetration coincides with the fixed one, but at 39.3%, it is just slightly above the EU average and almost half that of the highest performers, the Scandinavian countries, where penetration rates range from 72.6% to 92.9%.



Source: Communications Committee

The average broadband speeds in the Netherlands are already rather high. The majority of the broadband connections (49.5%) offered speeds between 10 and 30 MBps in January 2012. About a fifth of the connections were over 30 MBps (with 19.3% offering speeds between 30 and 100 MBps and 2.1% over 100 MBps), a figure three times as high as the EU average.



Source: Communications Committee

Whereas KPN had announced the phasing out of its copper network in 2006, the DSL technologies are presently still dominating. In fact, 80% of the current investments are in DSL, since this allows for real competition between the incumbent, which is upgrading its copper network with technologies supporting high speeds, and the cable operators, which have previously upgraded their networks to Docsis 3. The Reggefiber joint venture (KPN 41%, Rebbeborgh 59%) is the largest investor in fibre and owns 78% of all FttH networks in the Netherlands.

Following the renewed analysis for Local Loop Unbundling excluding FTTO, comprising access to the Main Distribution Frame, the Sub Distribution Frame and FTTH, OPTA has found the incumbent to hold significant market power (SMP) and has therefore imposed a set of obligations including access, transparency, non-discrimination, and tariff regulation. The Commission made comments regarding the market definition (namely the exclusion of FTTO from the market), inviting OPTA to strengthen its analysis in this respect. Comments were also made in relation to the absence of a regulated alternative (virtual) product to SDF physical access, and in relation to the price control mechanism. The final decision is in force since 1 January 2012.

Two additional draft decisions concerning unbundled access to the business fibre networks (FTTO), and wholesale broadband access (WBA), which is coupled with access to wholesale terminating segments of leased lines, were notified to the European Commission in February 2012. As regards the FTTO market, which is considered to be a sub-market of the unbundled copper loop and FTTH loops, no party was found to have significant market power and therefore no remedies were proposed to be imposed. The Commission opened a Phase II procedure, expressing serious doubts as concerns both the market definition and the SMP finding. As regards the WBA/LL market, the lower end of the market was found to be competitive, whereas, for the high quality segment, there is a party with significant market power and thus various remedies seemed appropriate, but no tariff regulation was suggested. This draft notification is also subject to a Phase II procedure, whereas the Commission has expressed serious doubts with regard to the proposed absence of remedies for the fibre part of the high quality wholesale broadband access market segment.

The alternative operators have been rather critical of these decisions, considering that the strong deregulation trends adopted by OPTA are premature and counter competitive.

4.2 National Plans, private & public investments

Notwithstanding these positive developments, there are still challenges to be faced in a number of areas where operators do not find it commercially interesting to deploy broadband networks and where local and regional governments have no concrete, operational strategies in support for broadband rollout. Also, this well developed infrastructure still needs to be brought to the service of all parts of society. To meet these challenges the Dutch government adopted, in May 2011, the Digital Agenda Netherlands - ICT for Innovation and Growth. The document integrates the key strategic goals of the Digital Agenda Europe with the Dutch enterprise and growth policy. The European broadband targets are taken over, without being regarded as "ultimate objectives".

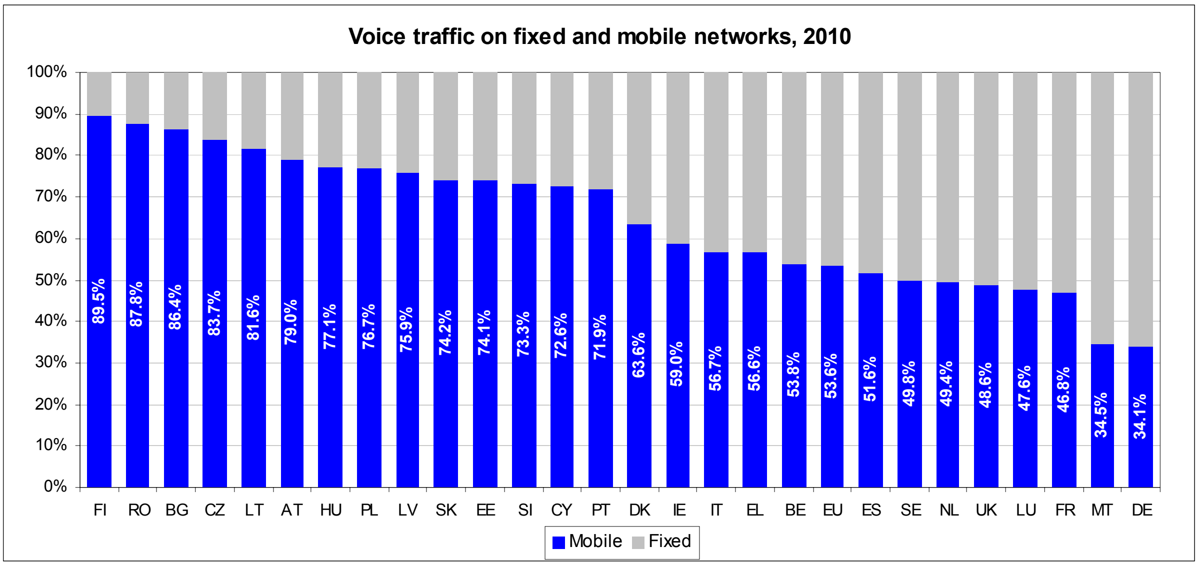
At the end of the reporting period, the Dutch Digital Agenda appeared well anchored in the national ICT and enterprise policy and the focus of the Dutch authorities was to ensure its implementation. Several cities have responded by creating their own digital agendas (*Stedenlink*) and an Implementation Agenda (*Digitale Implementatie Agenda*) has been prepared by the Government and presented to the Parliament in December 2011. It contains ten specific programmes reflecting to a great extent the current areas of focus in the Netherlands: stimulating demand and supporting e-commerce through ICT applications, investing in e-skills and open data, creating a proper climate for cloud computing.

5. VOICE AND OTHER ECOMMUNICATIONS SERVICES

The Dutch mobile market has remained the most lucrative one, with a strong increase in data revenues. As concerns fixed telephony, the incumbent has continued to be the dominant market player, despite a decreasing market share. Dutch consumers show an increasing preference for digital services, both regarding fixed telephony and television services. There is also an increase in the already high take up of bundled services, with a growing number of providers able to offer them. As far as market regulation is concerned, new notifications were received in 2012 concerning both fixed and mobile termination rates. They are currently subject to Phase II procedures. OPTA has also decided not to regulate the television market.

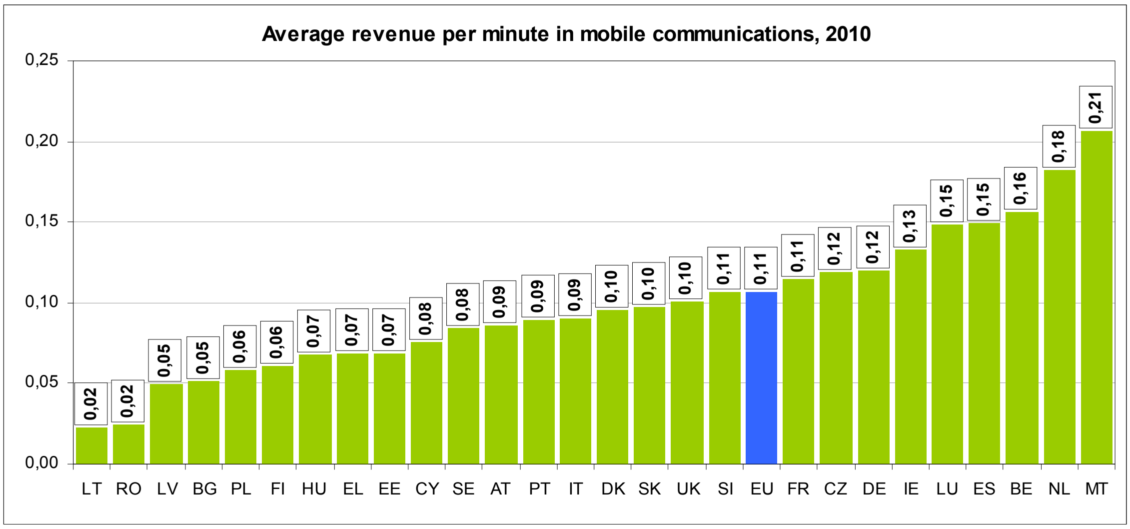
5.1 Mobile services

Voice traffic on fixed and mobile networks, 2010



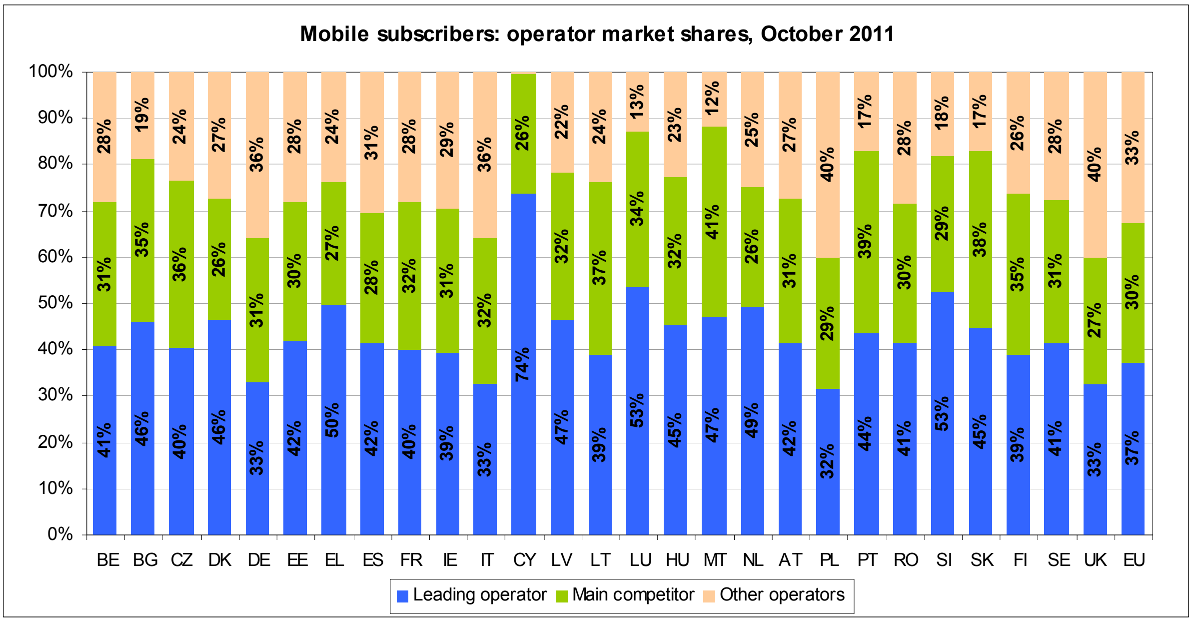
Source: Commission services

The revenues of the Dutch mobile market have increased, mainly due to the high penetration of smart phones. Data revenues have increased largely and for the first time have surpassed the revenues SMS. As far as penetration is concerned, after a period of two years of decrease, the number of mobile connections has increased in 2011 to more than 20 million connections. Here also, the highest increase is in data connections: whereas the increase for both post-paid and pre-paid connections is less than 5%, the increase in data connections is over 50%.



Source: Commission services

The market shares of the three major mobile operators have remained fairly equal, in spite of a slight decrease in the market share of the largest player. Also, there was an increase in the number of MVNOs, which was already considerably high in the Netherlands (from 50 to 62).

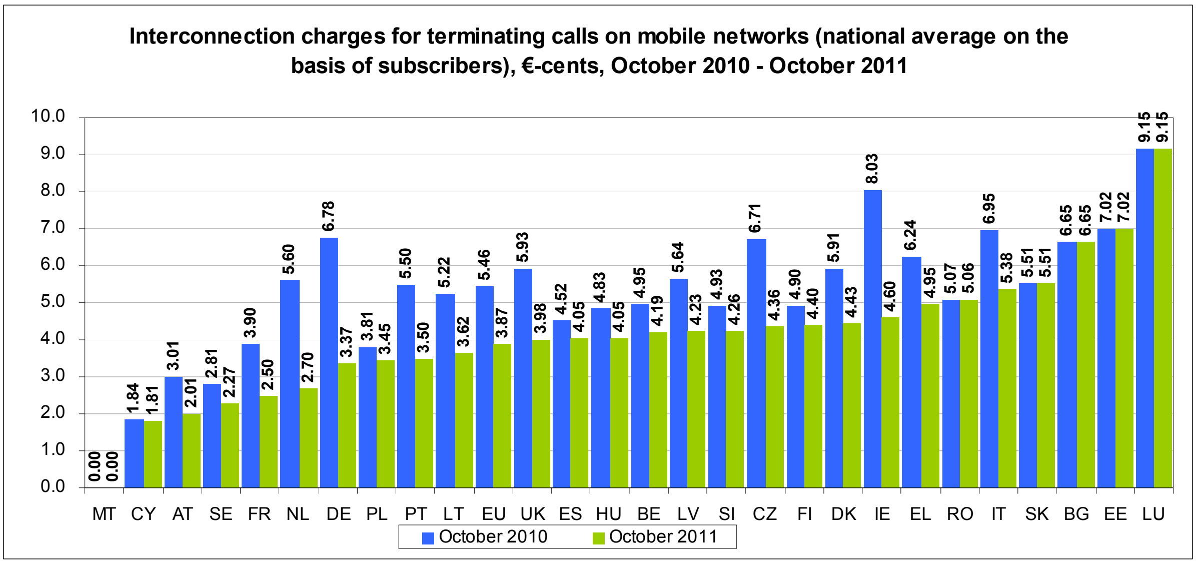


Source: Commission services

These trends have led to changes in strategy among mobile operators, which have been considering new billing models for data usage, including premium subscriptions with unlimited usage to VOIP applications and basic ones where such applications cannot be used. In response to these moves from the industry, the Lower Chamber of the Dutch Parliament voted, in June 2011, a so-called net neutrality related amendment (see below).

Finally, as concerns mobile termination rates, the Appeals Tribunal partly annulled, in August 2011, OPTA's 2010 decision. The Court annulled the pure BU-LRIC price caps, indicating in fact that the pure BU-LRIC model, proposed by the Commission Recommendation on Termination Rates (based on incremental costs only), is not in line with the cost orientation principle, as enshrined in the Dutch legislation, and requiring the application of the BU-LRIC plus model (which takes into account all efficient network costs). A subsequent modified decision was submitted by OPTA to the European Commission in 2012. In response, the Commission has opened a Phase II procedure, expressing its serious doubts as to the appropriateness of price control remedy based on the BU-LRIC plus methodology.

Mobile termination rates by member states, October 2010-October 2011



Source: Commission services

5.2 Fixed

The number of total retail fixed lines decreased in 2011. The highest decrease was in the PSTN (low quality) lines. The only increase was in the low capacity Voice over Broadband connections. In the first months of 2011, more than 55% of the customers had a digital telephony subscription (Voice-over-Broadband). Along with the number of lines, the traffic volume and the revenues have also decreased, in both the low and the high end of the market.

As far as the market shares are concerned, the incumbent operator, KPN, still remains the dominant player. However, KPN's market share for the residential fixed telephony market fell from 60-65% to 55-60% during the past year. For the business fixed telephony market, the market share remains the same (65-70%). Despite the fact that the number of alternative operators providing voice services through direct access to customers has decreased, their overall market share has increased. These consolidation trends are valid both for the business and the consumer market.

As regards fixed telephony, the Appeal Tribunal has annulled OPTA's Fixed Telephony 2008 decision, by which it deregulated the business retail market, ruling that a market should not be deregulated based on the "three criteria test". In the repair decision, OPTA maintains the business market definition and finds the incumbent to have SMP on the retail business market. OPTA has proposed regulation at retail level (a retail price floor). In the draft decision Fixed Telephony 2011, the business market definition has been altered and OPTA finds the incumbent to have SMP on the retail markets for dual and multiple call services. In that decision regulation (a retail price floor) at retail level is proposed only for dual and multiple call services. Both decisions have been recently notified to the European Commission and are currently being analysed.

Finally, the above mentioned Phase II procedure, whereby the Commission is expressing serious doubts as to the appropriateness of the price control remedy based on the BU-LRIC plus methodology, concerns also fixed termination rates.

5.3 Broadcasting

Despite previous regulation of access to cable networks, OPTA concluded in its analysis of June 2011 that the television market does not pass the "three criteria test" justifying ex ante regulation. This is due to the increasing competition that cable companies now face from other platforms, development of new services, and the growing importance of digital TV. As these trends have proven strong and consistent, the television market does not need, in OPTA's view, ex ante regulation. The final decision of judgement was adopted in December 2011.

OPTA nevertheless continues to monitor the television market. This data shows that the importance of analogue television is indeed decreasing: the number of analogue subscriptions dropped by 30% over the past year. On the other hand, the number of digital TV subscriptions is increasing: in July 2011, more than 72% of the Dutch television subscribers were (also) watching digital TV. Recently, strong DSL upgrades have allowed the incumbent to provide high quality IPTV, now usually on two TV sets per household. While in the past 2008 over a third of IPTV subscribers kept their analogue cable subscription for secondary TV sets, last year only a few of IPTV subscribers still did so. The general trend therefore is that cable subscriptions are experiencing a decrease, mainly due to attractive IPTV offers by the incumbent and new entrants on DLS and FttH.

6. SPECTRUM MANAGEMENT

In 2011, the Dutch authorities have prepared a major, multiband auction, scheduled for October 2012 and due to release large amounts of spectrum in the 800 MHz, 900MHz, 1800 MHz, 1900 MHz, 2100 MHz and 2600 MHz frequency bands.

Following this auction, large amount of spectrum will be made available in the 800 MHz, 900 MHz, 1800 MHz, 1900 MHz, 2100 MHz and 2600 MHz frequency bands, with the entire spectrum below 1GHz being reorganised.

Out of the 13 licenses available in the 800 MHz and 900 MHz bands, three licences will be reserved for newcomers (2x10 MHz paired spectrum in the 800 MHz band and 2x5 MHz paired spectrum in the 900 MHz band). Whereas the Parliament has insisted that a third of the available space is reserved for newcomers, operators have complained about an "artificial scarcity" created.

According[5] to the material published by the Dutch government, including a consultation document , the design of the auction is kept as open as possible, with the exception of the reservation of spectrum slots for newcomers. No caps are envisaged and the basic price is rather low. The auction is expected to have a high impact on the competitive outlook of the mobile Dutch market up to 2030. Also, it is hoped that it would lead to a large scale deployment of fourth generation networks. Currently LTE seems to only be deployed on a local, pilot basis.

The five licence holders of 2.6GHz spectrum following the 2010 auction have already announced that they would meet their roll-out obligations by 11 May 2012, exactly two years after receiving them. The five licence holders are required to offer public commercial services within two years, with the coverage area depending on the amount of spectrum held. In general the areas of coverage are rather small (from 20 to 80 square kilometres).

Finally, all EU spectrum harmonisation decisions have been implemented in the Netherlands, with the exception of Decision 2008/411/EC, where implementation is still under way. Decision 2010/368/EU has entered into force on 1 January 2011 and Decision 2010/166/EU on 1 January 2012.

[5] http://www.rijksoverheid.nl/onderwerpen/frequentiebeleid/beleid-in-voorbereiding/ontwerp-regeling-aanvraag--en-veilingprocedure-vergunningen-800-900-en-1800-mhz-en-de-bijbehorende-ontwerp-vergunningen

7. Consumer Interest

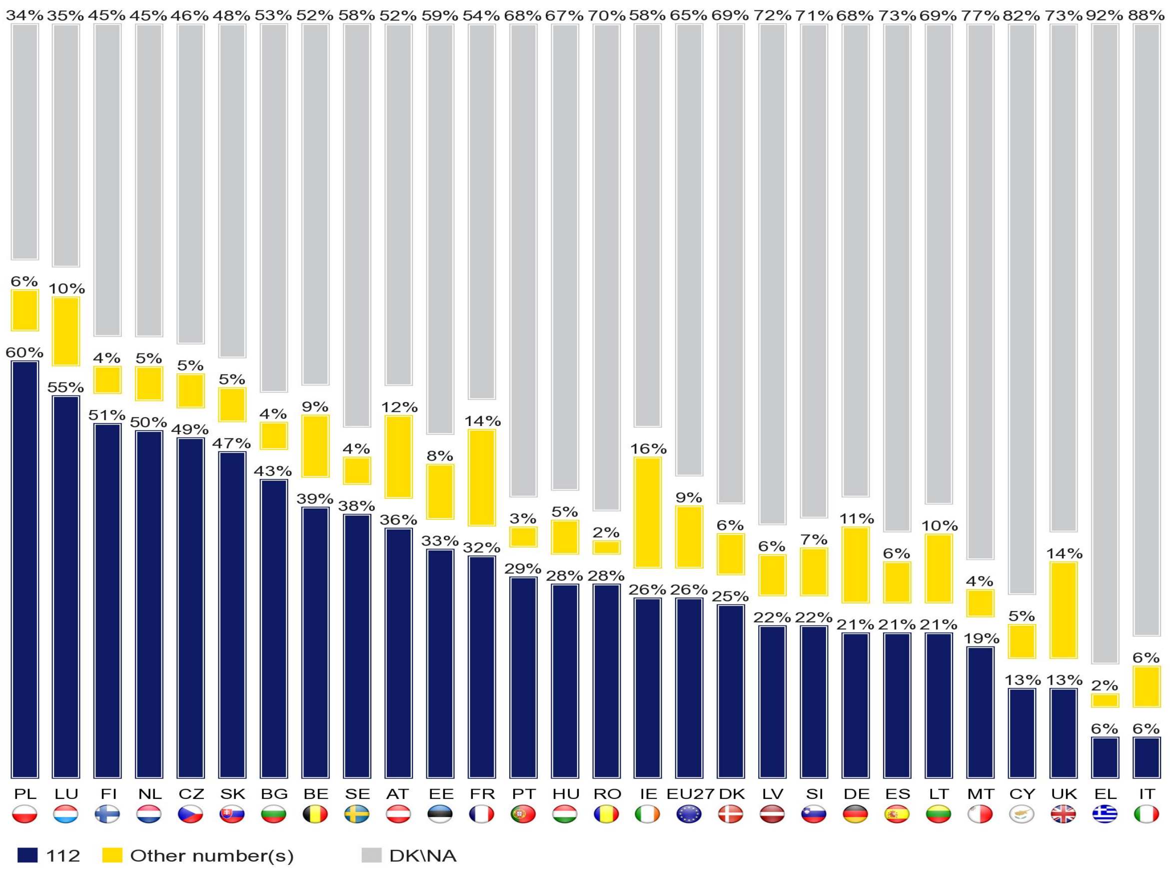
7.1. 112 – European emergency number

The provision of caller location information for inbound roamers using the network of one operator remains an open issue in the Netherlands.

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

The provision of caller location information for inbound roamers by one operator remains an open issue in the Netherlands. Despite the fact that the operator concerned did the necessary adjustments to its network, the information transfer cannot be completed. The Commission will continue to monitor this situation.

7.2 Net neutrality and Quality of service

Specific net neutrality legislation is being introduced in the Netherlands.

The Dutch Lower Chamber of the Parliament has adopted an amendment to the draft revised Telecom Law, which aims at preventing Internet Service Providers from hindering or slowing end-users traffic and applications, as well as price differentiation based on the applications and services used or offered via the Internet Access Service. Exceptions apply allowing measures aimed to manage network congestion or preserve security and integrity of the network, and implement provisions in law and court orders. Once this amendment enters into force, the Netherlands will be the first country in the EU to adopt such strict net neutrality legislation. The elaboration of minimum quality standards, as envisaged in Article 22(3) of the Universal Service Directive, is not yet foreseen in the Netherlands.

7.3 Consumer complaints, tariff transparency

New consumer protection rules concerning premium SMS billing entered into force in 2011.

The ministry has issued new consumer protection legislation in April 2011, concerning premium SMS billing. The legislation falls under the supervision of OPTA. Premium rate SMS services had been a large nuisance for Dutch consumers as they were perceived as excessively expensive and fraudulent. Besides premium SMS services, the most common type of complaints received in 2011 concerned contractual arrangements (silent prolongation of contracts), premium rate numbers, telemarketing and spam.

In 2010 OPTA gave additional guidance on the already existing tariff transparency rules. Supplementary tariff transparency rules have been implemented in the Netherlands since September 2010, with a focus on actively showing the most basic tariff information in offers made online by telecom operators. An assessment made by OPTA in 2011 showed that most providers have indeed improved their tariff transparency on their websites.

It is also worth mentioning that the Dutch Parliament is playing a very active role in electronic communication policy in general, and in consumer issues in particular, proposing for example legislation concerning waiting times at helpdesks and cancellation terms for contracts.

7.4 Number portability

Although it took on average 2 or 3 days to port a number in the Netherlands during the last year, no operators reported difficulties in complying with the new portability rules.

According to data covering the period from October 2010 to October 2011, it took 3 days to port a mobile number and 2 days to port a fixed number. In a strict technical sense number portability – both fixed and mobile – takes less than an hour. During the same period, over a million mobile numbers were ported and roughly the same fixed numbers, too. None of the parties has reported problems with respecting the new switching requirements of the EU reform package.

7.5 Universal service

New rules concerning universal service are due to be adopted shortly.

New rules concerning Universal Service have been designed and are due to be adopted and implemented together with the revised Telecom Law. Further secondary legislation concerning the provision of services to disabled users is due to be stipulated in the first half of 2012. An initial proposal has been revised following consultation with stakeholders.

The incumbent operator is the single Universal Service provider in the Netherlands, with no state funding mechanism activated.

7.6 ePrivacy

The Dutch NRA, OPTA has stepped up its efforts against unsolicited communications. The Dutch authorities are also currently developing a notification collection system for data breaches, as well as a so called "opt-in system" for cookies.

During 2011, OPTA has continued to impose high fines against major spammers (1.4 million Euro in 2011) and telemarketeers (around 1 million Euro in 2011). OPTA has also embarked on a self-regulation exercise concerning a) the reporting of infected botnet clients to consumer ISPs who have signed the “botnet treaty” (which was initiated and facilitated by OPTA over 2008/2009 and was signed by 14 Dutch consumer ISPs on January 1st, 2010) and b) reporting malware- and spam-related infrastructure to hosting ISPs, urging them to take appropriate action towards their clients or resellers.

OPTA is currently developing a notification collection system for data breaches related to public electronic communication services. Currently a common notification point with the Ministry and the Radio-communications Agency is foreseen. The Dutch Data Protection Agency is informed during the set-up of the notification portal. As soon as the notification obligation for data breaches is extended to other areas, the Data Protection Agency will also be directly involved in the handling of notifications. Given the high number of security incidents in the Netherlands in 2011, the topic has in any case become a highly sensitive one.

OPTA is also preparing for the regulation of the opt-in system for cookies, focused on the storing of and/or gaining access to the information on a user’s system only after the user has given consent. When the directive is implemented the usage of cookies for non technical reasons will demand such consent.

EUROPEAN COMMISSION

Information Society and Media Directorate-General

Electronic Communications Policy

Implementation of Regulatory Framework

18 June 2012

POLAND

2011

Telecommunication Market and Regulatory Developments

8. POLAND

1. STATE OF TRANSPOSITION OF THE REVISED EU FRAMEWORK

<u>Development of the sector</u>

The competitiveness at the market has generally been preserved with seven mobile network operators MNOs (Polkomtel, PTC, PTK, P4, Mobyland, CenterNet, Aero2) and the number of alternative operators competing with the incumbent (Telekomunikacja Polska – TP) in fixed telephony and broadband (e.g. Netia).

The revenues of entire sector slightly increased, unlike in most of the EU Member States. Yet, mobile operators' investments were smaller than in the previous year. *[section 3]*

In **fixed telephony**, in line with the general trend of 'fixed to mobile substitution' TP's market share for fixed access lines continued to decrease. Also, in the fixed broadband market TP suffered from the competition decreasing the market share compared to the previous year to the benefit of new entrants.*[section 5.2]*

On the **mobile market**, the tendencies observed in previous years continued in 2011, with relatively low prices, a steady increase of mobile penetration and increase of data traffic comparing to voice services. In the course of 2011 the national regulatory authority (UKE) entered into agreements with mobile operators (PTC, PTK, Polkomtel, P4) with a view to boosting investment in exchange for a slower glide path towards lower mobile termination rates. In January 2012, plans to introduce symmetry as of 2013 were eventually confirmed in a common declaration of the President of UKE, BEREC and the Commission. In 2011 the Polish mobile market witnessed a significant take-over of Polkomtel, one of the biggest MNOs with 29,3% market share in terms of subscribers, Finally, LTE services have been commercially launched, including fast internet (up to 100MBps) in certain urban areas.

The three largest MNOs (PTK, Polkomtel and PTC), which were the first entrants historically, had a stable revenue market share over 90%. Most of the remaining market share was owned by P4, which by extending systematically its position since its entry in 2007, reached in July 2011 8.4% in terms of revenues. *[Section 5.1]*

With the increase of data traffic over the voice services, the future allocation of remaining spectrum became crucial for operators.*[Section 6]*

Number portability in mobile was usually done within one-day while in fixed telephony it required up to 7 days. With 330 259 transactions on fixed numbers between January and September 2011, the overall number of fixed portings decreased, whereas mobile porting transaction continued to increase, totalling 696 526 transactions. This, however, corresponded to a small share of 1.73% of all mobile numbers. *[Section 7.5]*

Progress in **broadband** deployment and take-up

The developments in broadband take-up were smaller than in the previous year. As a result the gap between Poland and the EU average remained considerable. The broadband penetration in Poland was below the expectations with 17.3% as of January 2012. This figure remained significantly below the EU average (27.8 %). In addition, a large part of the broadband subscriptions continued to be at speeds in the lowest range of 144 KBps – 2 MBps (26.2% in January 2012), making the accomplishment of Digital Agenda for Europe targets challenging. On the other hand the competitive situation on the broadband market noted some improvements in the reporting period with a relatively better access to wholesale products along with increased investment in the local loop and further decrease of the LLU prices.

In January 2012 half of the fixed broadband lines were based on DSL technology, while the rest was split between cable operators' DOCSIS and other technologies. The investment in next generation access networks was still very limited, with the strategic plans not finalised. In 2011 LTE services has been commercially launched. The Broadband Law (Megaustawa) started bearing fruits, in particular with regard to Rights of Way. In line with the Law UKE and the Ministry continued developing the mapping of electronic communications networks with a view to providing an updated electronic tool with information on broadband infrastructure (SIIS). [*Section 4.1]*

Independence and effectiveness of the NRA

Despite the lack of transposition of provisions reinforcing the independence of the NRA, the Polish NRA continued to be perceived as independent, both in terms of performance of its day-to-day activities, and from an organisational and financial point of view. After the end of the term of office at the position of the President of UKE, the new President was nominated. *[Section 2]*

Implementation of the framework

Poland has not yet transposed the revised regulatory framework[6], which was due by 25 May 2011. Further to the lack of notification of the measures transposing the regulatory framework by that date, infringement proceedings were therefore ongoing by the end of the reporting period.

Spectrum management

The process for the final assignment of rights of use for broadcasting is still on going. In particular, the preparations to the allocation of frequencies in the 800 MHz-band progressed. The operators did not show any interest in refarming within the 900 MHz band. *[Section 6]*

Citizens and consumer protection

[6] Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009 OJ L 337, 18.12. 2009, p.11 and Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 OJ L 337, 18.12.2009, p.37

Availability of 116 harmonised numbers has been good in Poland, while awareness levels remained low.*[Section 7.1]* There is still room for improvement with regard to the functioning of the European emergency 112 number. Despite that, the level of awareness of 112 is very good. *[Section 7.2]* With regard to net neutrality, Polish authorities involved very much in works at the EU level during Polish Presidency.*[Section 7.3]* The consumers continued complaining on erratic commercial offers. UKE continued developing the certification action with a view to promoting consumer friendly standards. *[Section 7.4]* Pending the new rules on Universal Service, none of the operators has been designated to provide it despite the expiry of the previous arrangements. *[Section 7.6]* No major issues on e-Privacy were reported. *[Section 7.7]*

2. NATIONAL REGULATORY AUTHORITIES (NRA)

Despite the lack of transposition of provisions reinforcing the independence of the NRA, the Polish NRA continued to be perceived as independent, both in terms of performance of its day-to-day activities, and from an organisational and financial point of view. After the end of the term of office at the position of the President of UKE, the new President was nominated.

The work on the amendment of the Telecommunications Law with a view to transposing the EU Regulatory Framework triggered some discussion on the selection procedure of the President of UKE. The final draft of the amendment preserves the current mechanism where the President of UKE is appointed at the request of the Prime Minister by the Sejm (lower chamber of the Parliament), after an approval of Senat (upper chamber).

The 5-year term of office of the President of UKE finished in May 2011. Due to upcoming Parliamentary elections at that time the President of UKE remained in office until the beginning of 2012. A new President was appointed by Sejm on 27 January 2012 and was confirmed by Senat on 1 February 2012.

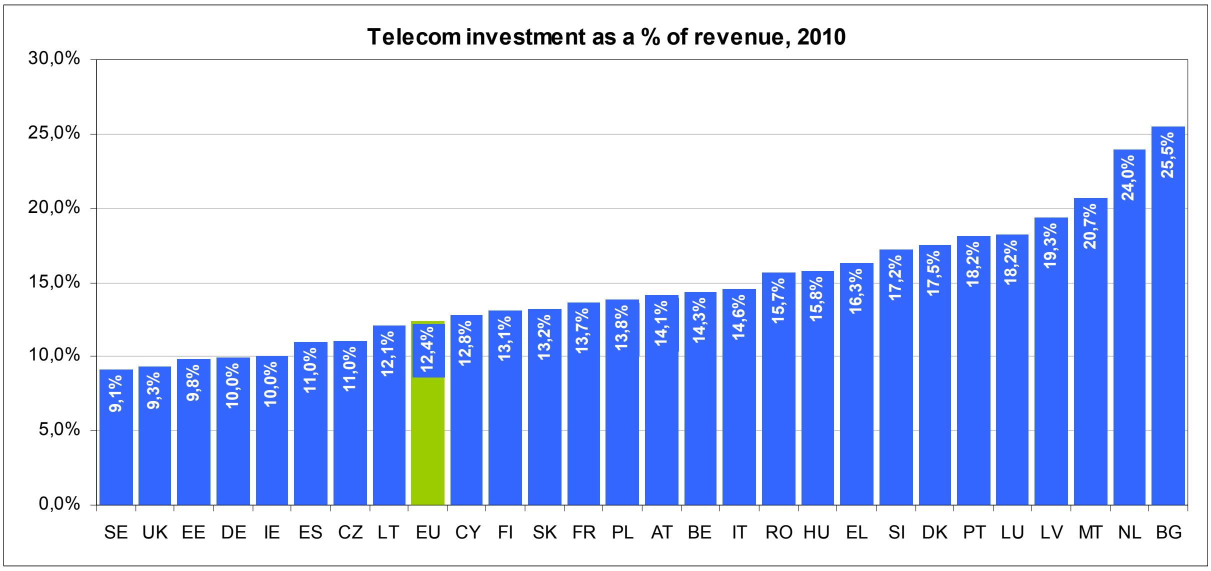
The regulatory objectives of the President of UKE in 2011 were as follows: to address major shortcomings in relevant markets, to improve service availability and penetration, as well as to improve access conditions for alternative operators. The President of UKE continued exploring different incentives to stimulate investment in broadband infrastructure.

The budget of UKE is balanced. The budgetary autonomy is ensured by a distinct line within the state budget. Currently, UKE employs 668 persons (both in central and in local branches) and this number is still growing despite the anti-crisis cuts in other central institutions. Wages in UKE were above the average in the public sector but below the average of the private sector in electronic communications.

As of January 2012 there were 312 complaints and appeals with regard to UKE's decisions pending before administrative and general Courts, the majority of which were appeals against decisions of the President of UKE (212). The length of the procedure has been subject to the same criticism as in the previous year. The proposed amendments to the Telecommunications Law would not address this issue.

3. REVENUES AND INVESTMENTS

The revenues of entire sector slightly increased, unlike in most of the EU Member States. Yet, mobile operators' investments were smaller than in the previous year.



Source: Commission services

As of December 2010 revenues in the electronic communications sector totalled €10 900 million, representing a slight increase compared to the previous year when they amounted €10 832[7]. The ratio between investments and revenues remained slightly above the EU average (13.8% compared to 12.4%[8]), yet the total value of investments continued decreasing but less than in the previous year reaching €1 503 million in December 2010, in comparison to € 1 514 million in December 2009 (a year to year decrease of less than 1 %). The investments by mobile operators kept being the highest in absolute amounts but unlike in previous years these investments also decreased by one fourth. At the same time, the investments of fixed operators visibly increased approaching the investments of mobile operators, what can be put down to the Agreement of 2009 between the incumbent and UKE on cooperation and investments.

4. BROADBAND

The developments in broadband take-up were smaller than in the previous year. As a result the gap between Poland and the EU average remained considerable. In addition, a large part of the broadband subscriptions continued to be at speeds in the lowest range of 144 KBps – 2 MBps, making the accomplishment of Digital Agenda for Europe targets challenging. On the

[7] With the exchange rate in 2009 of 1 EUR = 4.32 PLN and in 2010 – 1 EUR = 3,99 PLN
[8] This result gave PL 15 position in EU-27.

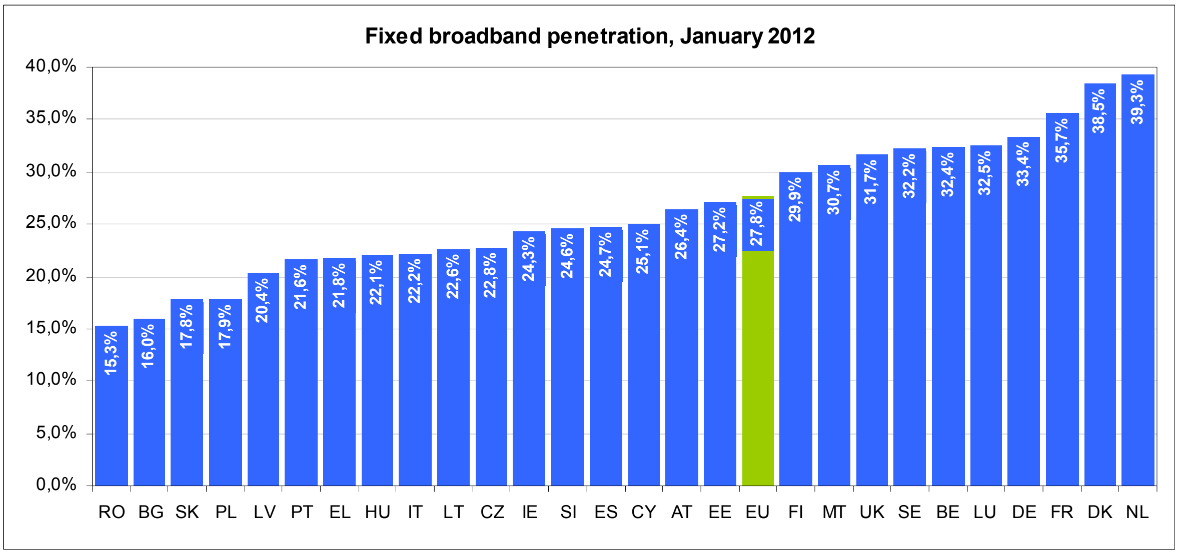
other hand the competitive situation on the broadband market noted some improvements in the reporting period with a relatively better access to wholesale products along with increased investment in the local loop and further decrease of the LLU prices.

In January 2012 half of the fixed broadband lines were based on DSL technology, while the rest was split between cable operators' DOCSIS and other technologies. The investment in next generation access networks was still very limited, with the strategic plans not finalised. In 2011 LTE services has been commercially launched. The Broadband Law (Megaustawa) started bearing fruits, in particular with regard to Rights of Way. In line with the Law UKE and the Ministry continued developing the mapping of electronic communications networks with a view to providing an updated electronic tool with information on broadband infrastructure (SIIS).

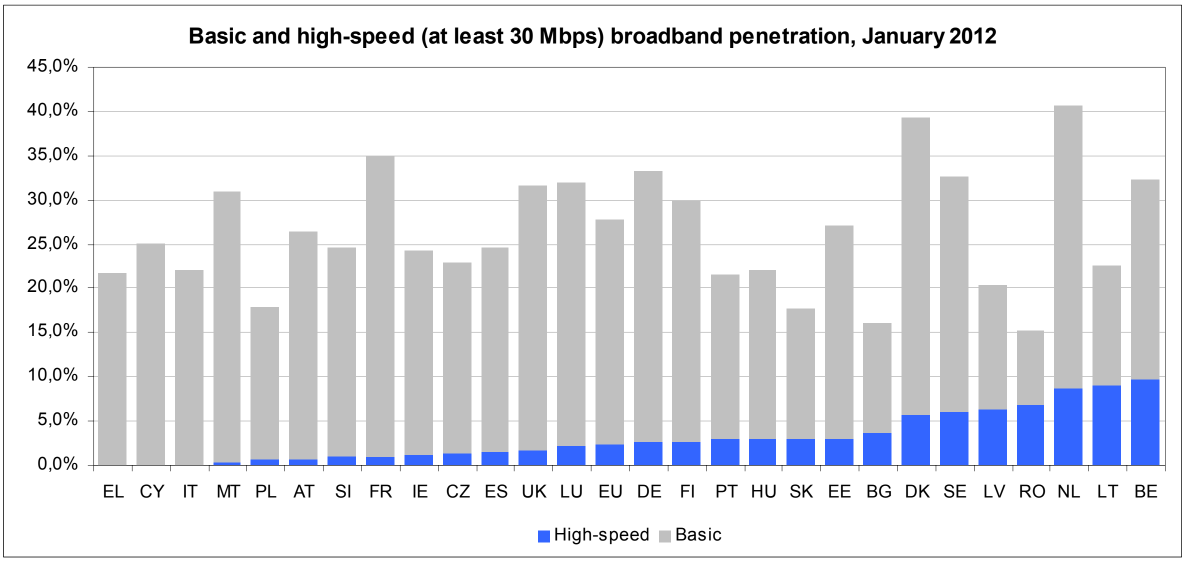
4.1. Market situation and regulatory developments

Broadband penetration, at 17.3% in January 2012 remained significantly below the EU average (27.8 %). A large part of the broadband subscriptions continued to be at speeds in the lowest range of 144 KBps – 2 MBps (26.2% in January 2012). In January 2012 still almost half of the fixed broadband lines were based on DSL technology (48%, while the rest was split between cable operators' DOCSIS (27%) and other technologies (25%). In the cable sector consolidation continued. During the third quarter of 2011 the biggest cable operator (UPC) increased its market share in the cable market to 32.46% due to the take-over of a competitor (Aster). This has increased the competiveness of the cable sector (increasing to 27% market share in fixed broadband) vis-à-vis other broadband operators.

The market share of new entrants in fixed broadband lines increased in January 2012 comparing to the previous year (from 67.4% to 69.5% while the incumbent's market share regressed from 32.6% in January 2011 to 30.5% in January 2012).

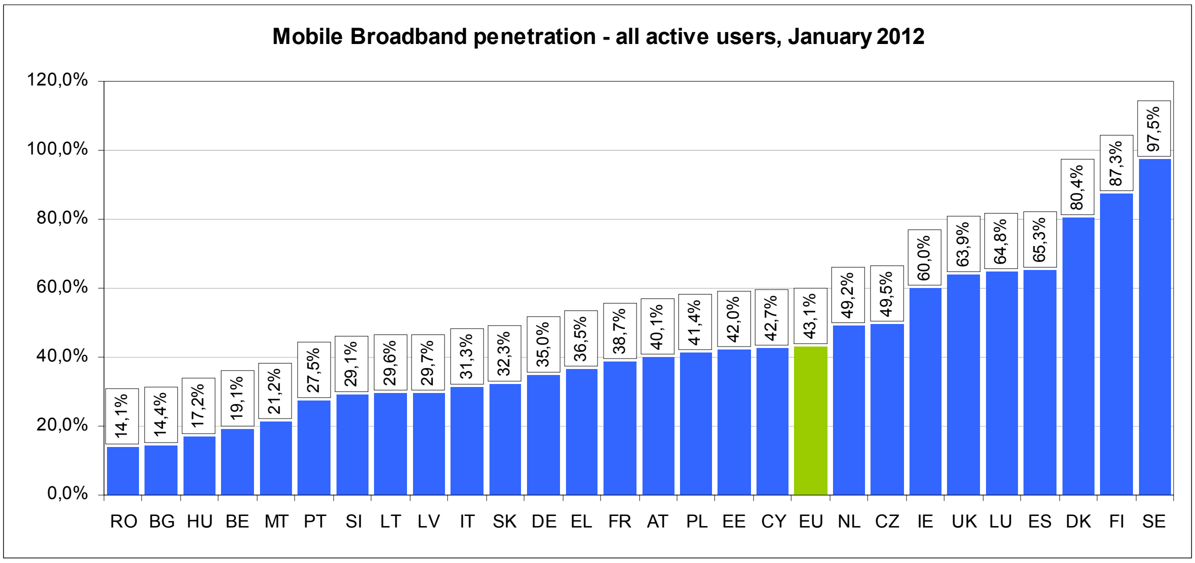


Source: Communications Committee



Source: Communications Committee

The penetration of mobile broadband continued to be slightly above the EU average with 8.3% for dedicated cards/modems in January 2012, whereas the EU average was at 8.1%. At the same time the rate of penetration in terms of dedicated cards/modems decreased compared to the previous year when it was at 9.1%, while in terms of all active users, the penetration marginally grew with 41.4 % in January 2012 comparing to 41% a year earlier, remaining however below the EU-27 average of 43.1%.



Source: Communications Committee

The positive trend in local loop unbundling continued, steered by the Agreement between UKE and the incumbent as well as the active use by the President of UKE of the regulatory measures on the markets 4 and 5[9]. Still, the alternative operators urged for further improvements. In June 2011 the Commission condemned the incumbent with regard to its abusive practices[10] (refusal to supply) in providing access to its networks and to supply Bit Stream Access (BSA) and Local Loop Unbundling (LLU) wholesale products (Decision COMP/39.525)[11].

Also positively, the LLU prices in Poland remained the lowest in the EU with €5.34 in October 2011 per fully unbundled loop comparing to the EU average at € 9.70, while the price for shared access at € 1.67 was fourth smallest in the EU (after NL, BE and IE).

In the context of its market review of the wholesale broadband market, UKE identified different levels of competitive conditions in various geographical regions of Poland. These differences, although not stable enough to justify defining separate relevant markets, prompted UKE to regulate differently in certain administrative units with more competition at a retail level.

The incumbent seemed to continue investing in broadband lines in accordance with the conditions set out in the 2009 Agreement with UKE[12]. Under a new Annex signed on 31 January 2012, the timeframe for investments has been extended from 31 December 2011 to 31 March 2013, in exchange for higher speeds (220 thousand lines - 30 MBps instead of 6 MBps regarding the broadband lines scheduled for 2012), however still on copper.

In 2011 investment in next generation networks (NGN) remained very limited. Cable operators were upgrading to DOCSIS 3 in a bid to retain customers. Competition from the fibre sector mainly targeted business users in larger cities. Both the incumbent and the main alternative operator were further developing VDSL2 as the attempts to agree on co-investment in NGN had failed. UKE continued attempts to agree with the providers on the FTTx strategy but to no avail. Positively, by its decision of 4 October 2011 the President of UKE modified the reference offer of the incumbent in order to encourage better use of VDSL technology (allowing for 40 MBps and 80 MBps speeds).

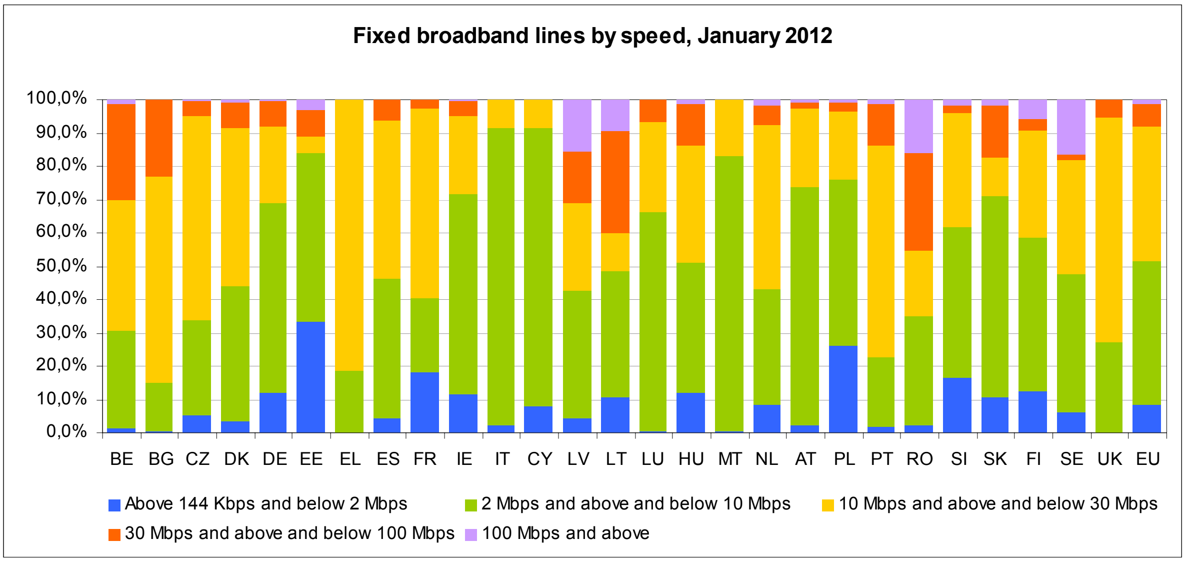
---

[9] Market 4 - wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location; Market 5 - market for national wholesale broadband access.

[10] The decision concerned the period 2005-2009.

[11] The appeal of the incumbent is pending, see Case T-486/11

[12] The incumbent was bound to deliver 1,2 million broadband lines by the end of 2012.



Source: Communications Committee

4.2. National Plans, private & public investments

While work on the National Broadband Plan continued, by the end of January 2012 the document had not yet been adopted. The project is currently being further developed by the Ministry of Administration and Digitization. Poland's broadband plans are currently based on the 2008 Government's 'Strategy for the Development of the Information Society in Poland until 2013' and the long term strategy "Poland 2030" of 17 November 2011. Neither of these documents however set clear broadband targets. On the other hand the Broadband Law, among others introduced the requirement of localisation of duct infrastructure along new and rebuilt roads.. The Law also helped to remove from the local zoning plans different types of bans for deployment of the telecoms infrastructure which was appreciated by the operators. In line with the Law UKE, National Institute of Telecommunications and the Ministry of Administration and Digitization continued developing the mapping of infrastructure of telecommunications network with a view to providing an updated electronic tool with information on broadband infrastructure (SIIS).

The absorption of the structural funds improved compared to the previous years. The 'Eastern Poland' project (€ 323,4 millions), after the positive clearance from the European Commission in November 2011, entered into the stage of preparation of tenders for contractors. The Ministry launched the 'systemic project' intended to speed up the implementation of specific broadband projects and promote Internet facilities.

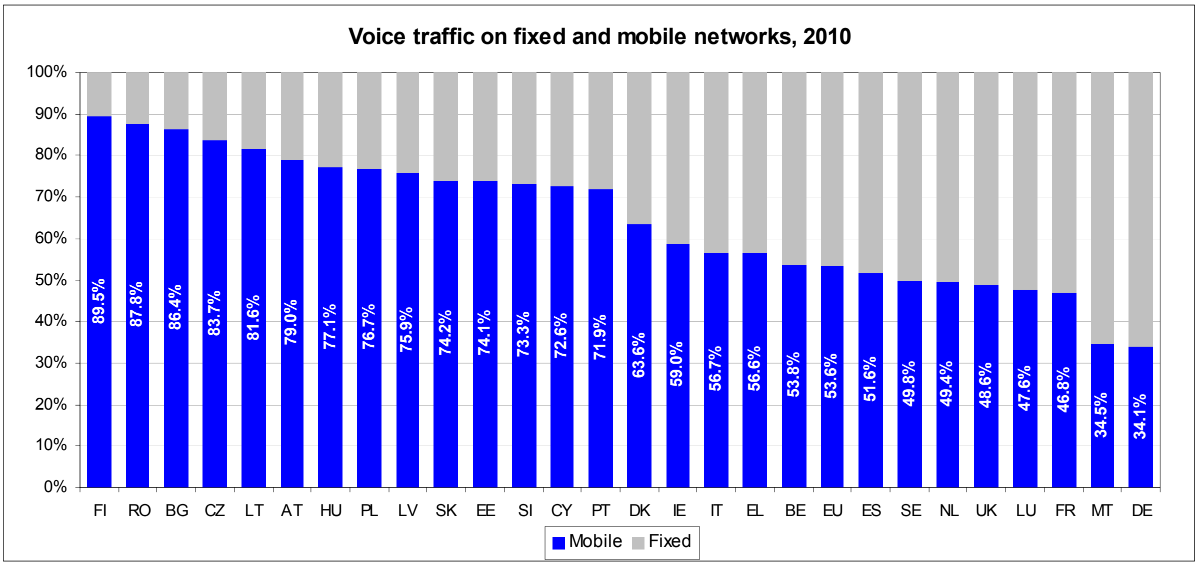
5. VOICE AND OTHER e-COMMUNICATION SERVICES

On the mobile market, the tendencies observed in previous years continued in 2011, with relatively low prices, a steady increase of mobile penetration and increase of data traffic comparing to voice services. In the course of 2011 the national regulatory authority (UKE) entered into agreements with mobile operators (PTC, PTK, Polkomtel, P4) with a view to boosting investment in exchange for a slower glide path towards lower mobile termination rates. In January 2012, plans to introduce symmetry as of 2013 were eventually confirmed in a common declaration of the President of UKE, BEREC and the Commission. In 2011 the Polish mobile market witnessed a significant take-over of Polkomtel, one of the biggest MNOs with 29,3% market share in terms of subscribers. LTE services have been commercially launched, including fast internet (up to 100MBps) in certain urban areas.

In fixed telephony, in line with the general trend of 'fixed to mobile substitution' TP's market share for fixed access lines continued to decrease. The process of introducing Digital TV progressed, with the adoption of the relevant legal framework, and further decisions on multiplexes (MUX) allocation.

5.1. Mobile services

Market situation

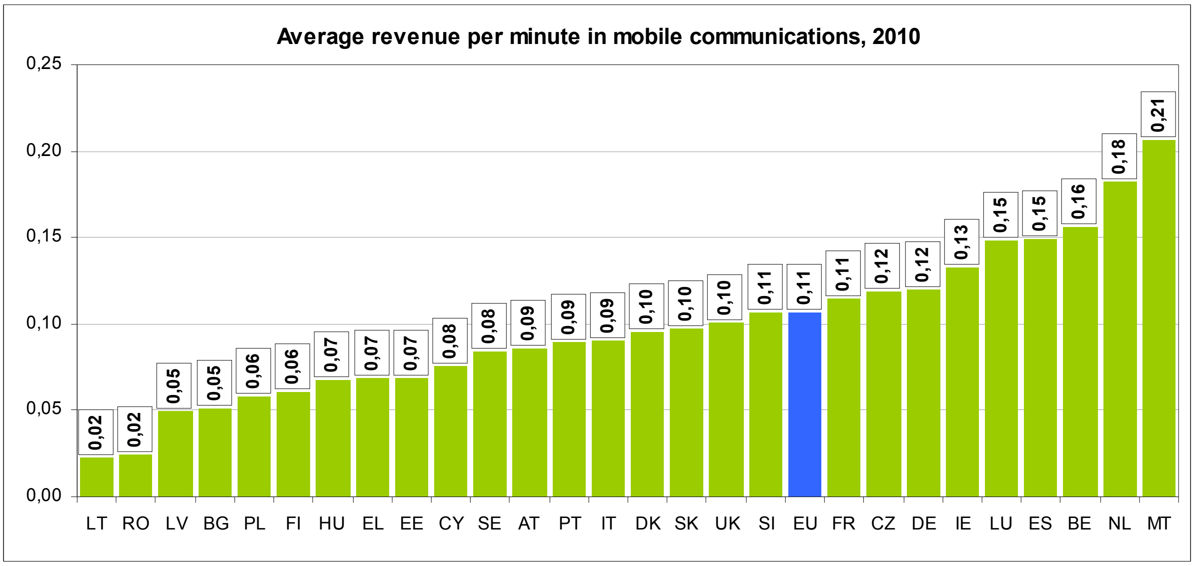


Source: Commission services

The mobile price per minute of voice communication at €0.10, was at the level of the EU average[13]. The mobile average revenue per user (ARPU) remained among the lowest in the EU with €113 in 2010 which is below the EU average of €221, decreasing by another 27% compared to the previous year (€156). The mobile penetration increased for more than 6 percentage points to 120.4% in October 2011, comparing positively with the previous year

[13] With a currency exchange rate of €1 = PLN 3.99 in 2010 in average.

when mobile penetration amounted 114.3% and grew 4 percentage points. This increase can be mostly attributed to ownership of multiple SIM cards. Yet, this result remained below the EU average of 124.2%.

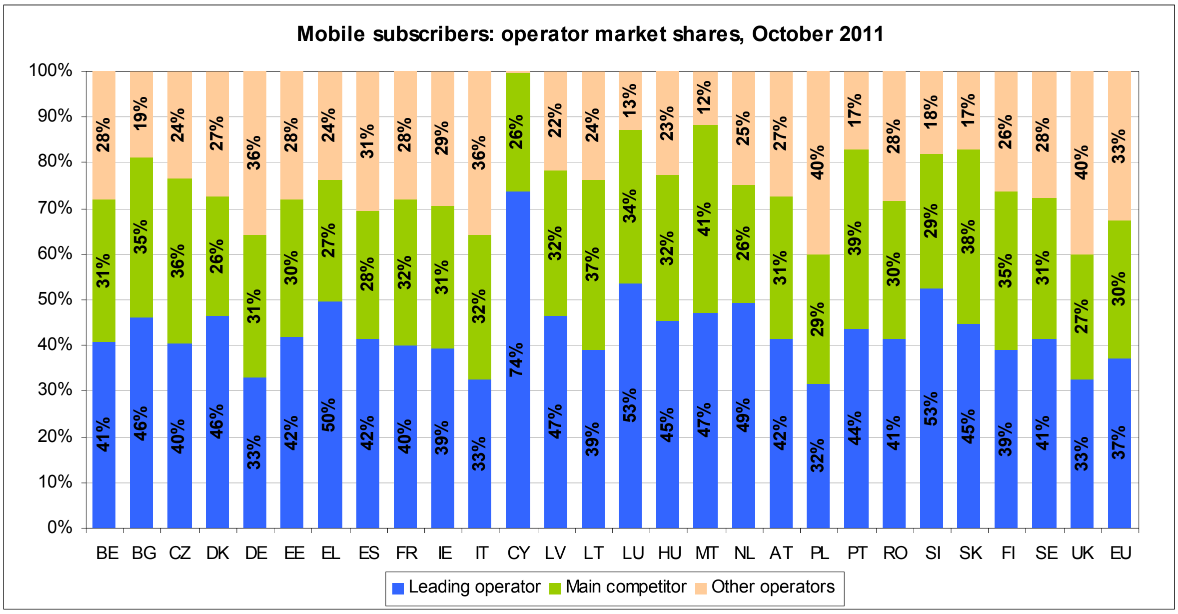


Source: Commission services

The Polish mobile market is well developed with seven mobile network operators MNOs, the last entering the market in December 2010. The position of the market leader remained unchanged, with a market share in terms of subscribers of 32% in June 2011. The competitors had respectively 29 % and 27%. The fourth operator, which is on the market since 2007, further extended its market share, reaching 12% in July 2011, representing an increase of approximately 3 % compared to its 9.4% market share at the same time in 2010, according to the NRA data. At the end of 2011 the number of mobile virtual network operators (MVNOs) had further increased from 15 to 18. However, their cumulated market share remained below 1%, with only one MVNO (Cyfrowy Polsat) exceeding 100 000 active subscribers, thanks to a strong customer base and the distribution network of the big satellite broadcaster that belongs to the same capital group.

In June 2011 the second biggest operator was taken over by a capital group that already had 3 other MNOs and the biggest MVNO. The transaction was cleared by the National Competition Authority (UOKiK) following consultations with UKE, on the grounds, among others, that such a concentration might boost the development of 4G telephony (LTE and HSPA+). Shortly after the approval of the transaction by the NCA, the new member of the group introduced an offer of LTE services with coverage of approximately 22% of the population, available in 16 cities.

In July 2011 two operators signed an agreement establishing a joint-venture with a view to enhancing infrastructure development and saving the infrastructure costs incurred individually by both operators. Operators expected that the deal would reduce overall expenditure by 29% in the first three years from a reduced capex for network development as well as a lower opex.



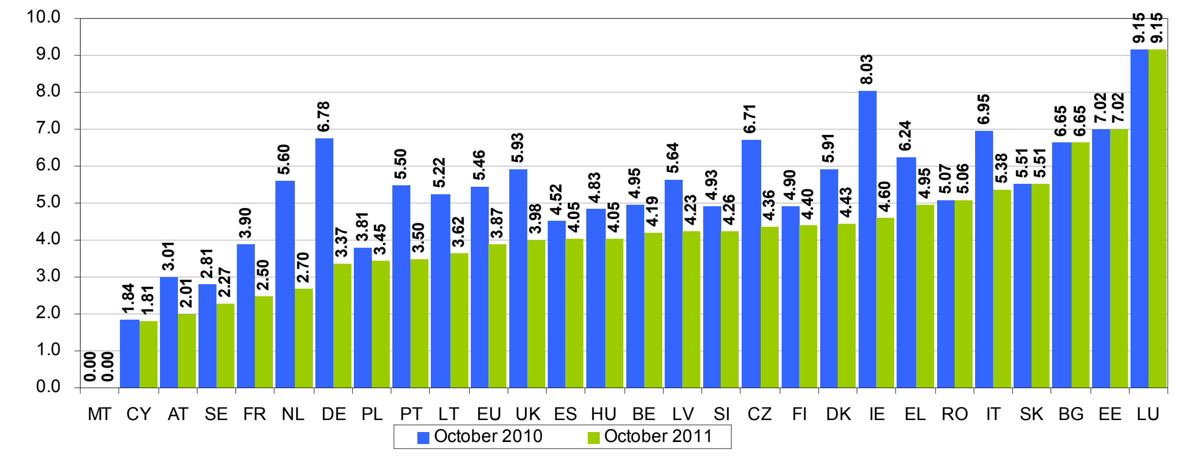
Source: Commission services

Regulatory issues

In an attempt to improve coverage, UKE entered in May and June 2011 into agreements with four main operators concerning investment in so-called white spots (where there is no 2G coverage) and in sparsely populated areas (where the roll-out of a 3G network would not be economically justified) in exchange for a lighter MTR glide path. The objective was to eliminate white spots and to roll out 3G to 80% of the territory as a minimum. In addition operators agreed to withdraw a number of appeals pending at that time against the individual decisions setting MTRs. While UKE consulted its draft decisions on remedies with the Commission, the Commission expressed comments as to the compliance of the proposed price levels with the EU Termination Rates Recommendation and the principles and objectives of EU law. Despite the Commission's negative comments[14], UKE adopted the measures resulting from the agreement between UKE and the mobile operators and at the end of 2011 the operators were subject to the same MTR of 0.152 PLN (€ 00.038), excluding the operator, that was subject to the asymmetric MTR of 0.27208 PLN (€ 00.068). For the first time since the amendment to the Telecommunications Law in October 2010, these agreements have been legally binding.

[14] The European Commission could not at that time use its powers under Article 7a of the amended Framework Directive.

Interconnection charges for terminating calls on mobile networks (national average on the basis of subscribers), €-cents, October 2010 - October 2011



Source: Commission services

UKE's plans with regard to the MTRs as of 1 January 2013 triggered doubts by the European Commission as to the compatibility with EU law. As a result the European Commission decided to use for the first time its new powers under Article 7a of the Framework Directive[15] which gives it the right to scrutinize remedies proposed by national regulators. Eventually, in the common statement of the President of UKE, BEREC and the European Commission of 20 January 2012, the three parties agreed that MTRs, as of 1 January 2013, will be symmetric, and be set at a level based on a PURE LRIC bottom-up model.

Roaming Regulation

All operators aligned in 2011 with new roaming tariffs, whereas in most of the cases the average retail roaming prices for voice and SMS were still just below the retail caps. As regards roaming for data transfer (not covered by the Regulation) the average price in June 2011 ranged from 2.21 to 4.45 for 1 MB and as such was above the EU average[16].

5.2. Fixed

Market situation

With incumbent's market share at 57.4% (in terms of all types of calls by traffic volume) in December 2010 the decrease of the fixed market continued (in December 2009 the market

---

[15] Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive)

[16] Source: NRA information

share amounted 63.3%). This tendency, which can be attributed mainly to 'fixed to mobile substitution', did not however affect much the market share of the incumbent in terms of revenue, which increased over 2010 from 64.8% in December 2009 to 68.4% year later. At the same time the incumbent experienced further competition from the biggest alternative fixed network operator (Netia) and other operators, including the cable ones (with almost 5 percentage points of subscribers more using an alternative operator at the end of 2010 than in the previous year with regard to national calls and almost 7 percentage points with regard to international calls). There is still ample room for growth for VoIP, as its market share (by traffic volume) was still below the EU average (5.8% compared to 23.4%), despite the fact that as of December 2010 the market share of VoIP by traffic volume had almost doubled, compared to the previous year when it was at 3%.

In general, bundled offers including fixed telephony were much less popular (in July 2011 the penetration was at 5.5%) compared to the EU average of 22.2% but have considerably increased comparing to the previous year when they amounted 3.8%. The most common bundled offer was broadband combined with television whereas television offer was considered to be the most important factor in choosing such packages.

Regulatory issues

The alignment of the provision of the Telecommunications Law**,** which provided a general ban on bundled services, with the Judgement of the Court of Justice of the European Union in case C-522/08 was still outstanding.

5.3. Broadcasting

The Act on the introduction of digital terrestrial television, adopted on 30 June 2011, established, among others, the rules of selecting operators on multiplexers 1 and 2, and imposed on them certain obligations of public information campaigns about digital TV. Multiplex 1 has been granted in part to the national broadcaster (until the third multiplex would reach full capacity) and no later than until April 2014. For the remaining capacity (four channels) the media board (KRRiT) carried out a competitive procedure finalised in April 2011. Multiplex 2 has already been assigned to commercial broadcasters, and by the end of 2011 it had reached coverage of 94% of the population. As regards multiplex 3, it has continued pilot transmission, whilst at the same time increasing in coverage. The plan is still to switch-off analogue broadcasting on 31 July 2013.

The must-carry regime has been changed by the Broadcasting Act, resulting in an obligation for each operator to retransmit the public service channels, and one regional television channel broadcast by the public service broadcaster. Operators must also carry those channels which were broadcasted in analogue form by the four commercial broadcasters on the basis of a broadcasting licence on the day of the entry into force of the Act. These rules apply to all operators regardless of the technical mode of distribution. No compensation is provided for such retransmission.

Overall, the share of Polish TV viewers relying on analogue broadcasting continued to decrease as viewers switched to other platforms. As of July 2011, approximately 46% of subscribers used the satellite platform, while 27.5% used cable. This means an almost 16 percentage points' increase for satellite platforms and almost 9 percentage points' loss for cable. Internet television (IPTV) subscriptions were negligible (1.3%), yet noting a little increase comparing to the previous year.

6. SPECTRUM MANAGEMENT

The process of final assignment of rights of use for broadcasting is still on-going. The preparations to the allocation of frequencies in the 800 MHz-band progressed. The operators did not show any interest in refarming within the 900 MHz band.

Commission Decision 2009/766/EC on the harmonisation of the 900 MHz and 1800 MHz frequency bands was implemented by three ordinances of the President of UKE of December 2011 and January 2012. Currently, all existing decisions are technologically neutral. Updated information on rights of use in various frequency bands is available in the EFIS database and on UKE's website.

LTE was launched commercially in September 2011 by a MVNO (Cyfrowy Polsat), which is operating on the networks of the operators from the same group (CenterNet and Mobyland) within the 1800 MHz band while also offering HSPA+ in the 900 MHz band frequencies.

Despite the initiative of UKE from 2010, none of the operators requested refarming within the 900 MHz band. Instead, two operators started to look for other forms of cooperation which resulted in the conclusion of an agreement regarding co-sharing of the infrastructure and some frequencies (however without any prejudice to their respective property rights).

In October 2011 the tender procedure for two frequency blocks in the 1800 MHz band was repeated, following a successful appeal by a dismissed operator. Repeating the procedure did not impact on the original results of the auction.

At the beginning of January 2012 UKE started a consulting on an auction of frequencies in 1800 MHz band, scheduled for 2012. Furthermore, Polish authorities prepared changes to the National Table of Frequency Allocation reflecting the planned release of the digital dividend in the 800 MHz band. Accordingly, it is expected that the army will release most of the frequencies in the 800 MHz band by the end of 2012, with the exception of 860-864 MHz which would be in use only within certain military areas until 31 of December 2017. In 2011 UKE succeeded in signing additional agreements on international coordination. Currently, Poland has agreements with Belarus, Russia, Ukraine, Germany and Slovakia. Moreover, further to the World Radio Conference which started in January 2012 in Geneve, the use of 790-862 MHz in Poland is not anymore a subject to the prior agreement with Russia and

Belarus. All aforementioned actions aiming to clear the 800 MHz band for mobile services should speed up implementation of the RSPP decision[17] in Poland.

7. CONSUMER INTEREST

7.1. 116 - Harmonised numbers for services of social value

Availability of 116 harmonised numbers has been good in Poland, while awareness levels remained rather low.

Three lines are currently available in Poland within 116 (116 000, 116 111 and 116 123). During 2011 UKE has continued promotion actions to increase their visibility.

7.2. 112 – European Emergency number

While the functioning of the European emergence number 112 still requires improvements, its awareness in Poland remains the highest in the EU (60%).

A central localisation and information platform connected with the central database (PLI CBD) started operating in March 2011. It is expected that the performance of caller location should improve once the system will be connected with the databases on ported numbers. Currently the time required for location of a caller is above the European average of 1 minute (71.83 seconds; only 64.88% within 1 minute), whereas time to obtain location information from the PLICBD is assess by UKE to be less than 10 seconds

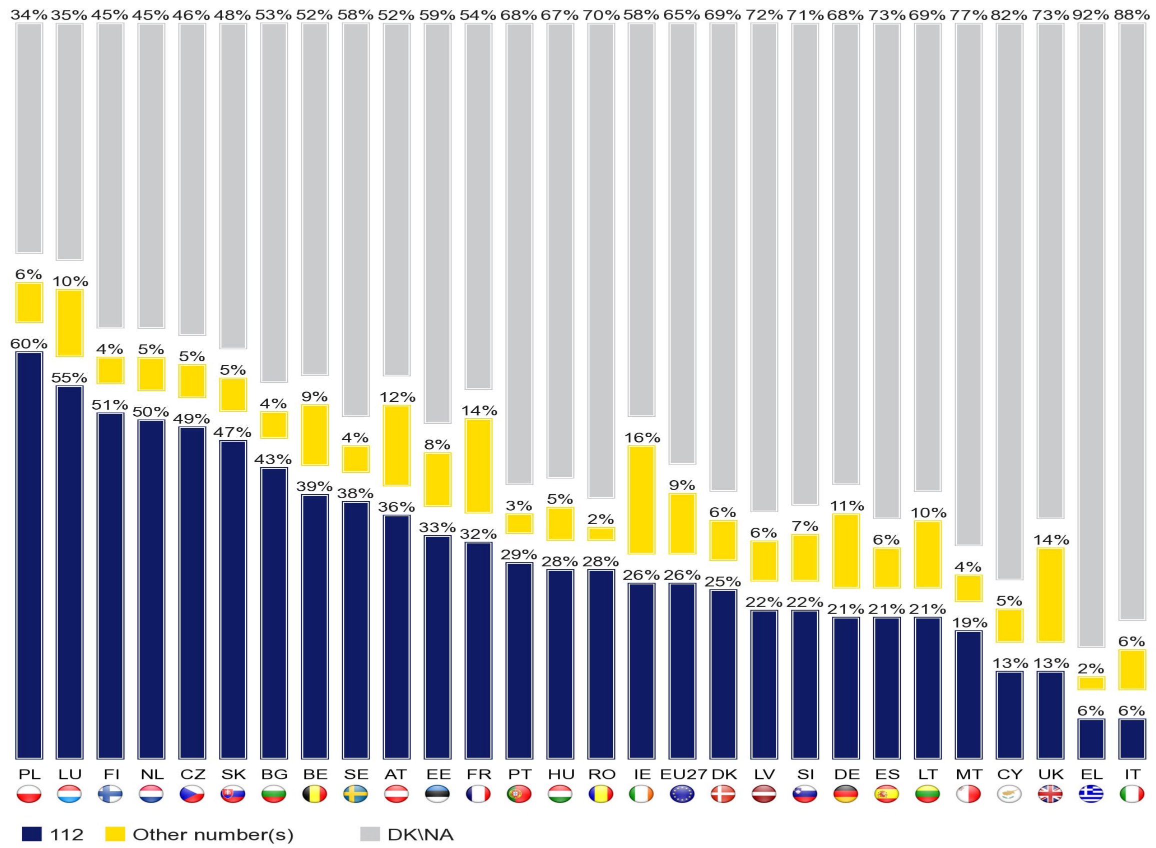
At the same time, neither consumers nor operators reported any problems with this service. With 60% of Polish respondents in the Eurobarometer survey of December 2011 identifying 112 as the number to call for emergency services from anywhere in the EU, Poland was at the top among the Member States.

[17] Decision 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme; http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:081:0007:0017:EN:PDF

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

7.3. Net neutrality and Quality of service

While the Polish Presidency very much steered discussions on net neutrality in the Council, national discussions organised by UKE have not yet been conclusive.

UKE continued organising debates, however without any clear outcome. Otherwise this topic did not draw much attention of consumers. Some discussions arose around a product which one of the operators considered introducing, with regard to the offering of an advertisement-free Internet. Net neutrality was one of the most important dossiers for the Polish Presidency which agreed the Council's position in this regard. On 13 December 2011 the Council adopted the Presidency Conclusions of the Commission communication on the open Internet and net neutrality in Europe.

On the other hand discussions on the quality of service were rather heated. This resulted from a proposed legal provision (Article 56, section 3, point 10) imposing guaranteed parameters (including speeds) for Internet access services. This idea was eventually dropped following comments from entrepreneurs and consumers submitted during the consultation on the draft amendments for the Telecommunications Act.

7.4. Consumer complaints, tariff transparency

The consumers continued complaining on erratic commercial offers. UKE continued developing the certification action with a view to promoting consumer friendly standards.

In 2011 consumers complained mostly on inconsistencies between the service as advertised (especially when presented by a telemarketer) and its effective parameters. This referred in particular to promotional offers, and to broadband speeds, which often proved to be significantly below the advertised one. The number of complaints related to white spots decreased, although there were still a significant number of complaints regarding poor coverage in certain areas. Consumers were also complaining on premium rate services and automatic on-line update by smart phones, also abroad, under roaming tariffs, as well as problems with the termination of contracts for bundled services.

The President of UKE pursued initiatives aiming at the certification of operators satisfying certain criteria and standards set out by UKE. In particular a new certificate for 'premium rate fair play' was introduced in 2011, with a view to better protecting customers of premium services. In late 2011 UKE held a consumer survey to collect customer feedback on the perception of the electronic communications services by Polish customers.

Consumer protection bodies have established good relations with main operators. The level of awareness of the customers was reflected in the increase of the amount of complaints referred directly to UKE (a year to year increase of 150%).

7.5. Number portability

Porting of mobile numbers was usually done within one-day while in case of fixed numbers the procedure required up to 7 days.

The number portability as set out in Article 30 of the Universal Service Directive[18] has been already partially transposed into the Polish law. The amendment of the Telecommunications Law transposing the revised EC regulatory framework will supplement that transposition with regard to Art.30(5) of the Directive (maximum contract period).

Between January and September 2011 the number of fixed porting transactions decreased by almost 1 percentage point, amounting in total 330 259 transactions, compared to 344 830 in

[18] Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive)

the same period a year earlier, while mobile porting transaction continued to increase, totalling 696 526 transactions. This, however, corresponded to a small share of 1.73% of all mobile numbers. Mobile numbers were ported in average in one working day, while this period was substantially longer for fixed numbers (up to 7 days).

7.6. Universal service

Pending the new rules on Universal Service, none of the operators has been designated to provide such service following the expiry of the previous arrangements.

After the expiry of the Universal Service Arrangement on 8 May 2011, due to the delay in the adoption of the amendment of the Telecommunications Law, which sets out new rules also with regard to Universal Service, including the possibility of geographical designation of Universal Service provider(s) and possibility to limit the scope of the USO designation to certain service, none of the operators has been designated to provide such services. Nevertheless, the incumbent has continuously been providing the services without any specific legal basis.

7.7. ePrivacy

No major issues on e-Privacy were reported.

The new regime for installing cookies (Art.5(3) of ePrivacy Directive[19]) has not been transposed into Polish law yet.

In 2011 UKE was actively involved in initiatives aimed at increasing the awareness on security issues, ePrivacy or protection from spam. This included certification actions (safe Internet, safe Phone etc.), running a thematic portal (safer in Internet) and giving patronage to the third Conference on Safety in Internet which took place on 8-9 June 2011.

The amendment of the Telecoms Law transposing the revised EU Regulatory Framework designate the President of UKE as the authority to be notified on security breaches as required by Article 13a of the Framework Directive and the President of DPA (GIODO) with regard to personal data breaches, as set out in Article 4 of ePrivacy Directive.

[19] Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications)

EUROPEAN COMMISSION
Information Society and Media Directorate-General

Electronic Communications Policy
Implementation of Regulatory Framework

18 June 2012

PORTUGAL

2011

Telecommunication Market and Regulatory Developments

PORTUGAL

9. MAIN MARKET & REGULATORY DEVELOPMENTS

Development of the sector

The total turnover for the electronic communications sector as of December 2010 is 4 % lower than in 2009, equalling to €5.940billion. The turnover reduction was mainly driven by a sharp decrease of mobile revenues (-8,4 %), partially offset by an increase of revenues from pay-TV (+8 %). Overall investments slightly increased (around 2%), thanks to investment in mobile (+26.3%) and other services (+40%), whereas investment in fixed services remains stable. The investments made, as a percentage of revenues, is at 18,2%, one of the highest in the EU, far above the EU average, of 12.4% (section 3).

Competition in the fixed broadband market continues to be based on different platforms, with DSL being the predominant technology (50% of all fixed lines), while cable accounts for another 39% of the market (far above the EU average, of 17%). LLU still represents the main access product for competitors. The penetration of bundled offers is increasing, mainly driven by a rise in triple-play offers (+5 pp). The market share of the incumbent operator (Portugal Telecom) continued to increase from 46,1% in January 2011 to 49% in January 2012 (section 4).

Mobile penetration was 156.4% in October 2011, increasing by almost 5 p.p. compared to October 2010. Fixed to mobile substitution remains important: in 2010: almost 71,4% of the total voice traffic went over mobile networks, well above the EU average of 53,5%. In the fixed voice market the incumbent operator (Portugal Telecom) still has, in December 2010, an important market share by traffic volume of 59,5%, despite having lost some market share over the last year. The number of VoIP originated calls continues to increase, representing in December 2010 12.7% of traffic in the fixed sector, far below the EU average (23.1 %). The switch-off of analogue broadcasting to digital broadcasting was completed on 26 April 2012 (section 5).

The total amount of ported numbers stayed stable with 106 787 mobile numbers and 263 708 fixed numbers ported. According to the new law, number portability should be made within one day (section 7.5).

Progress in broadband deployment and take-up

The fixed broadband penetration grew, reaching 21.6% in January 2012, but still remains lower than EU average (27.7%). Despite a decrease in 2011, data-card mobile broadband penetration is one of the highest in the EU (10.7%).

At the end of 2011, Portugal was moving towards achieving the DAE target aiming at securing a basic broadband connection (in the order of 2 Mbps) for all EU households by 2013. Progress has also been recorded in the deployment of high-speed (30 Mbps) and very high-speed broadband (100 Mbps), both in terms of coverage and take-up. The percentage of lines with speeds of 30Mpbs and above (12.3%) is well above EU average (7.2%), while the penetration of lines with speeds of 100 Mbps and above, remains marginal at 1.3%. The share of fixed broadband lines above 10 Mbps was 77.5%, the 3rd highest in the EU. Portugal is addressing broadband with a national plan, under which tenders were signed by the Government for the deployment of NGA networks in rural areas (providing a minimum guaranteed download speed of 40 Mbps. The roll out of the contracted services started in December 2011 and is underway until December 2013. (section 4).

Independence and effectiveness of the NRA

The Autoridade Nacional de Comunicações (ICP-ANACOM) is the national regulatory authority in Portugal. Significant delays in issuing regulator's decision has been reported by the operators recalling that the efficient functioning of the institutional framework could be further ensured by improving the timing of such decisions. (section 2).

Implementation of the framework

Portugal has partially transposed the revised regulatory framework (namely the Better Regulation Directive and partially the Citizens' Rights Directive). At the end of 2011, infringement concerning the amendment of the legislation on the processing of personal data and protection of privacy in the electronic communications sector, aimed at fully transposing the Citizens' Rights Directive, was ongoing. Furthermore, since the designation of the universal service provider in accordance with the Universal Service Directive had not been carried out, the Commission has launched an infringement, since 2005, which still pending.

Spectrum management

The NRA has finalised the multiband spectrum auction of the 450 MHz, 800 MHz, 900 MHz, 1800 MHz, 2.1 GHz and 2.6 GHz frequency bands. The final value of licences amounted to 372 million Euros. There were three winning bidders: Optimus, TMN and Vodafone; no new market entry took place. (section 6).

Citizens and consumer protection

Two of the harmonised numbers for services of social value are operational: the hotline for missing children (116000) and the child helpline (116111) (section 7.1). Awareness of 112 as the European Emergency number stands at 29% of the population (section 7.2).

No major issue has been reported by the different stakeholders on net neutrality, although there seems to be overall support for more transparency (section 7.3).

The most frequent source of concern, for the complaints directly addressed to ICP-ANACOM, continue to be contractual issues and billing. Enhancement of transparency remains a major objective of the NRA. (section 7.4).

With regard to Universal Service, in June 2011, the regulator has approved the decisions on the definition of excessive burden and on the methodology to be used for calculating the net costs borne by the incumbent with the provision of the universal service. Furthermore, in February 2012, ICP-ANACOM has approved the report of the public consultation and a decision on the specifications that the universal service provider(s) will have to meet when providing the different elements of the universal service. (section 7.6).

2. NATIONAL REGULATORY AUTHORITIES

The Autoridade Nacional de Comunicações (ICP-ANACOM) is the national regulatory authority in Portugal. Significant delays in issuing regulator's decision has been reported by the operators recalling that the efficient functioning of the institutional framework could be further ensured by improving the timing of such decisions.

ICP-ANACOM, the national regulatory authority for postal communications and electronic communications in Portugal, is established under the Act approved by Decree-Law no. 309/2001, of 7 of December. ICP-ANACOM's responsibilities include market regulation (including market analyses, spectrum management, frequency coordination, numbering management, etc.), market supervision, and international and national representation.

Operators feel that ICP-ANACOM's resource allocation among the different tasks should be better managed, feeling that regulatory function is underserved, while other areas have too many resources. Operators stressed the need to improve the timing of the regulator's decisions, which can have negative consequences on the functioning of the market and on regulatory certainty. In June 2011, the mandate of four out of five Members of the Board, including the President, expired**.** The members of the Board remain in office until the government makes new appointments, which is expected to happen before the end of the current semester.

The specialised court for competition, regulation and supervision was created in June 2011[20] and established in March 2012.[21] Orders or other measures adopted by the regulator, taken within the scope of administrative offence proceedings stemming from the application of the legal regime of electronic communications, are to be appealed before that Court.

20 Law n° 46/2011, of 24 June 2011.
[21] Portaria n 84 /2012n. 64

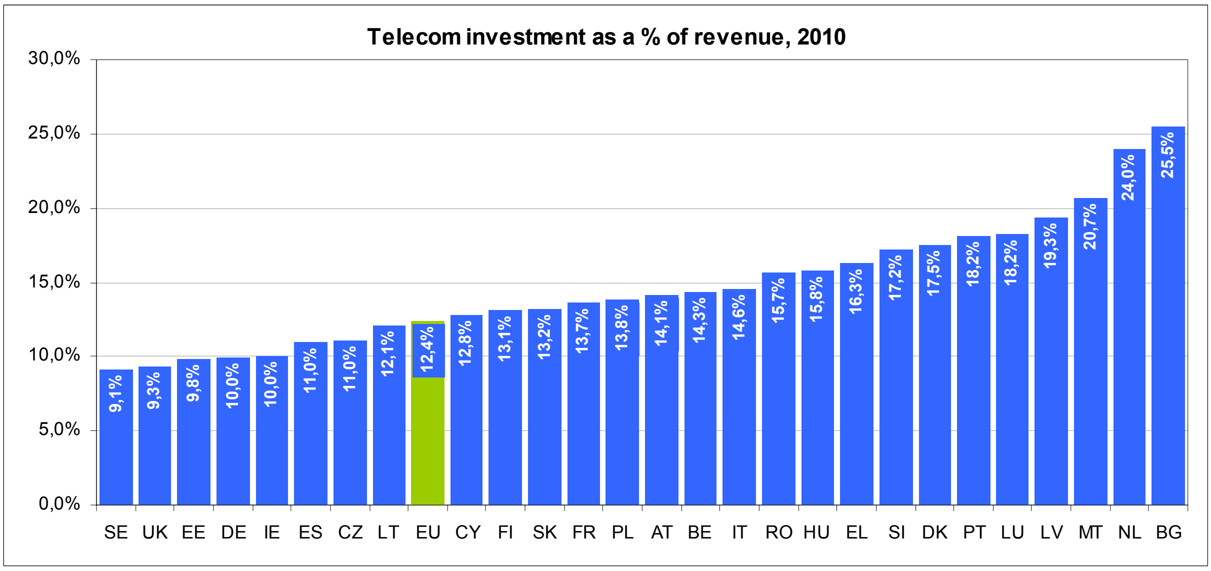
In 2010, the Portuguese Institute for Cinema and Audiovisual (ICA) conducted a public consultation on a draft Cinema Law, which was aimed at promoting the cinema and audiovisual sector through a series of financial contributions and investments. Following the elections, which took place in June 2011, the new Portuguese government published, in February 2012, a new draft of the Cinema Law, which is currently under consultation (until the end of April 2012. The new draft foresees financial contributions on electronic communication operators. The Commission services are looking into this matter.

In December 2008, Portugal adopted an administrative regulation[22] approving a new system for the fees to be paid by postal and electronic communications operators, such as the administrative charges and rights of use for spectrum and numbering resources. The regulation establishes that some revenues derived from the provision of universal service would not be considered for the calculation of certain administrative charges (those concerning the exercise of the activity of electronic communications networks and services provider) Based on this provision, in addition to an appeal to the national courts, some operators launched a complaint with the Commission regarding alleged state aid, which could also constitute a breach of the Authorisation Directive provisions on administrative charges. The Commission services are currently examining this issue.

3. REVENUES AND INVESTMENTS

The total turnover for the electronic communications sector as of December 2010 is 4 % lower than in 2009, equalling to €5.940billion. The turnover reduction was mainly driven by a sharp decrease of mobile revenues (-8.4 %), partially offset by an increase of revenues from pay-TV (+8 %). Overall investments slightly increased (around 2%), thanks to investment in mobile (+26.3%) and other services (+40%), whereas investment in fixed services remains stable. The investments made, as a percentage of revenues, is at 18.2%, one of the highest in the EU, far above the EU average, of 12.4%.

[22] Portaria n° 1473-B/2008, of 17 December, which was complemented in July 2009 with the Regulamento n.°300/2009, of 15 Jul 2009 on the adoption, settlement and collection of fees. The Portaria n° 1473-B/200 was recently amended by Portaria 291 A/2011 of 4 November 2011.



Source : Commission services

4. BROADBAND

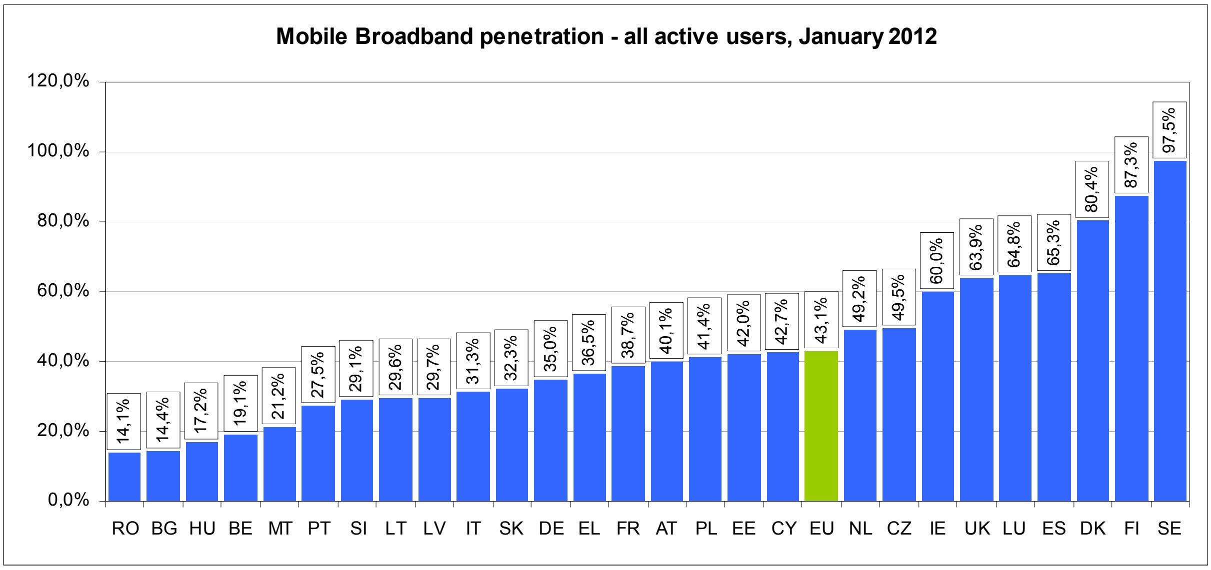
Competition in the fixed broadband market continues to be based on different platforms, with DSL being the predominant technology (50% of all fixed lines), while cable accounts for another 39% of the market (far above the EU average, of 17%). LLU still represents the main access product for competitors. The penetration of bundled offers is increasing, mainly driven by a rise in triple-play offers (+5 pp). The market share of the incumbent operator (Portugal Telecom) continued to increase from 46,1% in January 2011 to 49.% in January 2012.

The fixed broadband penetration grew, reaching 21.6% in January 2012, but still remains lower than EU average (27.7%). Despite a decrease in 2011, data-card mobile broadband penetration is one of the highest in the EU (10.7%).

At the end of 2011, Portugal was moving towards achieving the DAE target aiming at securing a basic broadband connection (in the order of 2 Mbps) for all EU households by 2013. Progress has also been recorded in the deployment of high-speed (30 Mbps) and very high-speed broadband (100 Mbps), both in terms of coverage and take-up. The percentage of lines with speeds of 30Mpbs and above (12.3%) is well above EU average (7.2%), while the penetration of lines with speeds of 100 Mbps and above, remains marginal at 1.3%. The share of fixed broadband lines above 10 Mbps was 77.5%, the 3rd highest in the EU. Portugal is addressing broadband with a national plan, under which tenders were signed by the Government for the deployment of NGA networks in rural areas (providing a minimum guaranteed download speed of 40 Mbps. The roll out of the contracted services started in December 2011 and is underway until December 2013.

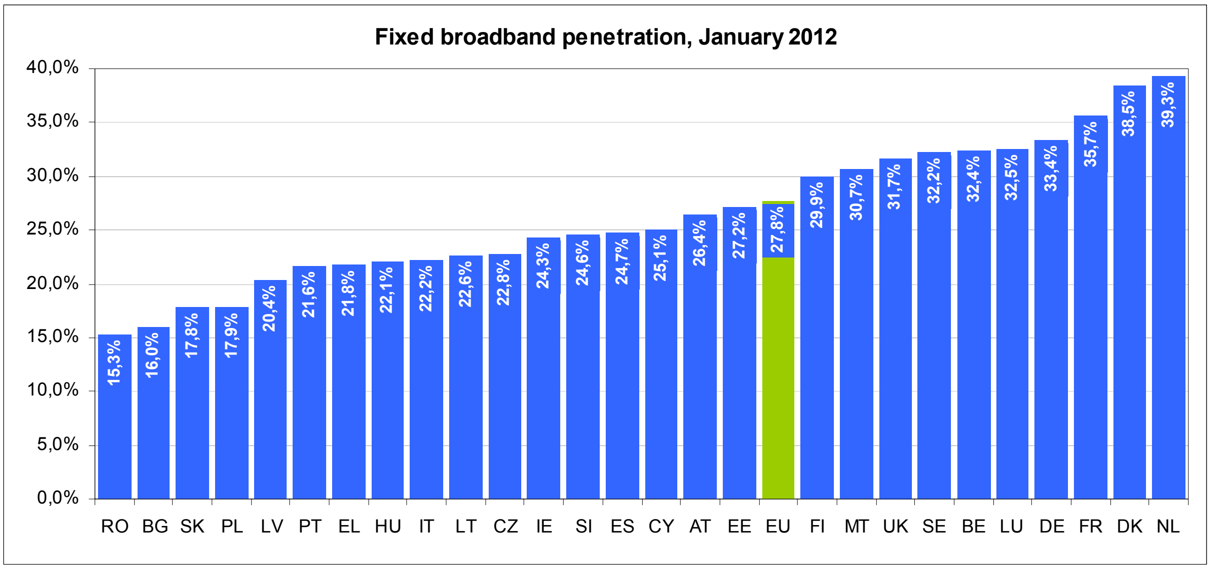
4.1. Market situation and regulatory developments

The usage of datacard mobile broadband is decreasing. Data-card penetration rate reached of 10.7% as of January 2012, which is the sixth highest in the EU and above the EU average (8.1%).

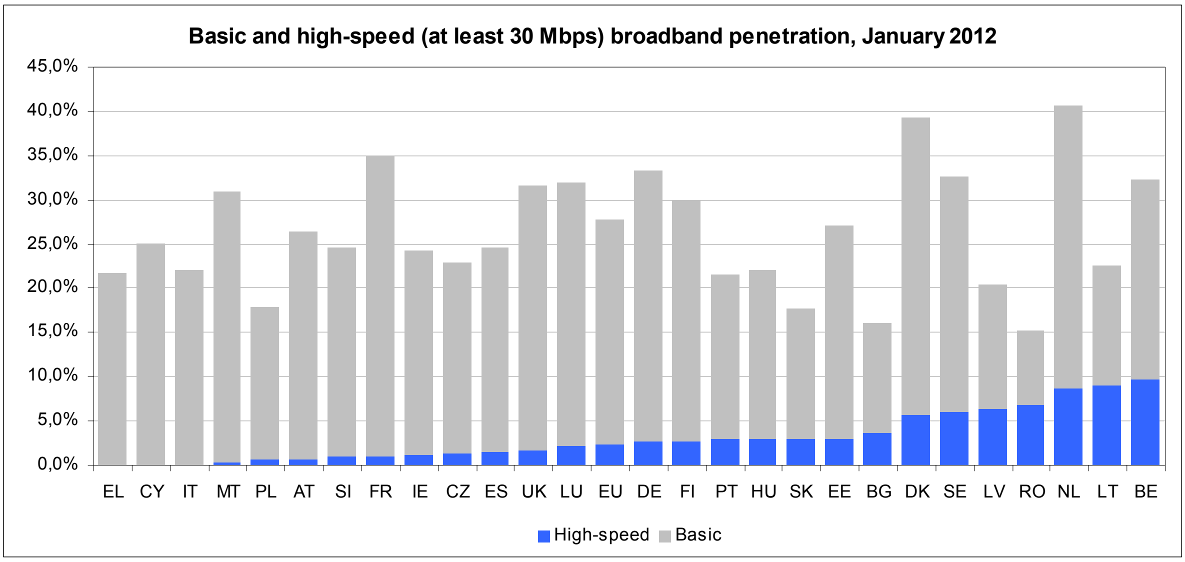


Source: Communications Committee

The fixed broadband market grew and in January 2012 the penetration rate reached 21.6%, but is still below the EU average (27.7%). The market share of the incumbent operator continued to increase from 46.1% in January 2011 to 49.% in January 2012. The new entrants' market share decreased in the last year by 3 p.p. from 54% to 51%.

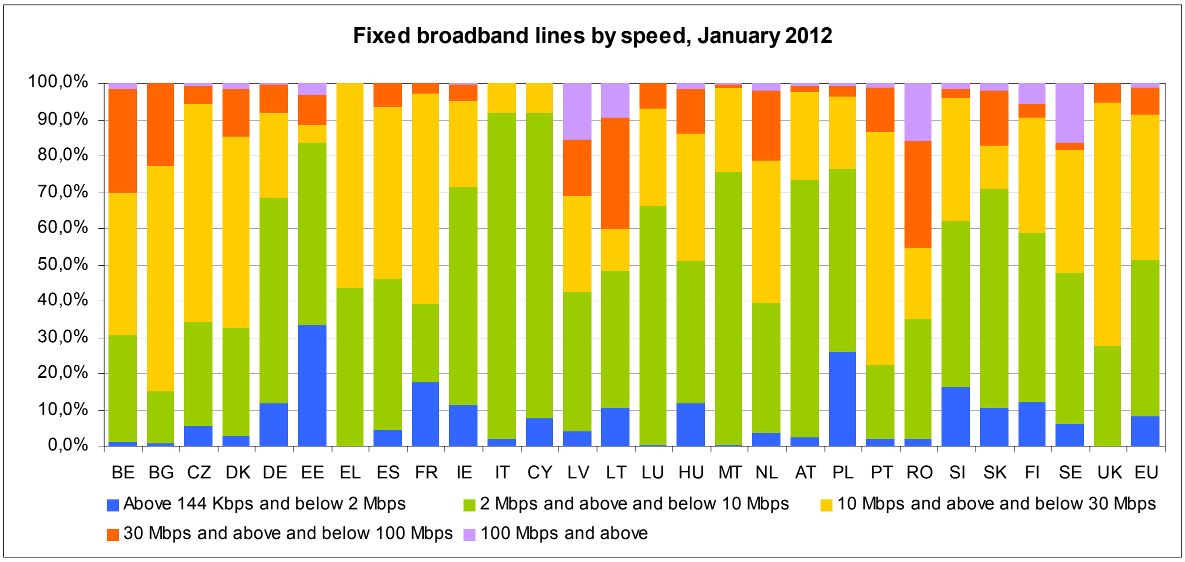


Source: Communications Committee



Source: Communications Committee

The percentage of lines with speeds of 30Mpbs and above (12.3%) is well above EU average (7.2%), while the penetration of lines with speeds of 100 Mbps and above remains marginal at 1.3%. The share of fixed broadband lines at 10 Mbps and above was 77.5%, the 3rd highest in the EU. Bundled offers penetration is increasing (up to 19.8% in July 2011 from 16.6% as of July 2010) but remain below than the EU average (22.2%). Increase is driven by triple bundled offers (achieving 14% penetration up from 9%) whilst double ones are decreasing (down to 5.7 % from 7,4%).



Source: Communications Committee

In Portugal the main technology for the provision of broadband is cable with a market share of 39% and DSL which still represents the predominant technology (50% of all fixed lines). While the majority of alternative operators' access lines are based in their own networks, LLU still represents the main access product for competitors. The number of full unbundled lines (shared access is not used) for the provision of the broadband services has continued to decrease form 229 098 in January 2011 to 196 383 in January 2012. LLU prices during 2011 remain stable, and continue to be just above the EU average: the monthly average total cost was €10.05 for full unbundling and €3.57 for shared access in October 2011, compared to the EU averages of 9.81€ and 3.12€, respectively.

In the broadband market no decision were taken in 2011. In January 2009, the regulator adopted the final measures concerning the markets for physical network infrastructure access and wholesale broadband access. Whereas fibre access products were included in the relevant markets, the regulator did not impose fibre related obligations but safeguarded the possibility to do so by means of a subsequent decision and in light of the roll-out of NGA networks. With regard to the wholesale broadband market, ICP-ANACOM geographically segmented the market, which was thus divided into competitive and non-competitive areas. ICP-ANACOM´s market analysis, more specifically the proposed geographical segmentation, was appealed in 2009 before the national courts, and the case is still pending.

The regulator launched, in February 2012, the public consultation on the second review of both markets. The main novelty with regard to the previous market analysis is the fact that NGA obligations are now proposed to be imposed on the operator with significant market power (SMP). With regard to the market for physical network infrastructure access, ICP-ANACOM proposes to impose the full set of obligations, including the obligation to provide a virtual unbundling fiber offer, until fibre unbundling over GPON becomes available (ICP-ANACOM proposes not to impose the virtual unbundling remedy in 17 municipalities (out of

308 in the whole country), where, according to ICP-ANACOM the competitive conditions justify the non-imposition of such remedy).

In February 2010 the regulator approved a decision concerning the improvement of the Local Loop Unbundling Reference Offer (known as ORALL) and its adaptation to market developments (e.g. introduction of premium and urgent service levels to repair faults, increase in non-compliance compensations and elimination of the link between sending forecasts and eligibility to receive the compensation in case of non-compliance with the SLAs and availability of more detailed information regarding the loops and MDFs). Furthermore in October 2011 the regulator launched a public consultation on the new draft decision concerning the proceeding to be carried out in order to evaluate quality of service within wholesale reference offers, including the ORALL, in order to minimise service failure.

The obligation to publish a reference offer for access to ducts and associated infrastructure (known as ORAC) and a reference offer for access to poles (known as ORAP) and to offer the access services at cost oriented prices constitutes a regulatory obligation imposed on the incumbent operator following the finding of SMP in the market for physical network infrastructure access. In October 2010 the regulator adopted amendments to the ORAC, by establishing, among other measures, that the incumbent (PTC) must provide online (Extranet) information regarding the profile and occupation level of ducts (based on a colour system with 4 levels of occupation) to alternative operators. Such information is only available for ducts located in competitive areas (for ducts located in the other areas only the information regarding the location of PTC infrastructures is available online). There is, since 2009, an ongoing dispute between PTC and ZON concerning the ownership of ducts in Madeira and Azores.

Alternative operators have raised concerns about the horizontal and vertical barriers forestalling the deployment of network infrastructures and also about the existing wholesale remedies/offers (e.g. ULL and ORAC) which, in their view, do not create the necessary conditions for other players in the market to invest and compete with the incumbent, both in the wholesale and in the retail markets.

In accordance with national legislation[23] which aims at promoting the deployment of next generation networks, the access to facilities is mandatory for undertakings owning or managing infrastructure suitable to accommodate electronic communications networks. The procedures and conditions for access and use of facilities should be made public and the remuneration for access to and use of the referred facilities shall be cost oriented or subject to a municipal fee in case of the use of infrastructure suitable for the accommodation of electronic communications networks that belong to the public or private domain of local authorities. In 2010 the regulator approved the definition of items to be registered and the

23 Decree-Law 123/2009, later amended by Decree-Law 258/2009.

terms and format of information to be provided in the Centralized Information System (CIS) that will contain geo-referenced information of all infrastructures suitable for accommodating electronic communication networks that are under management by different entities (e.g. electronic communications companies, entities under the authority or supervision of bodies of the State, autonomous Regions and local authorities). ICP-ANACOM launched a tender for the management of the CIS in November 2010 (proposals had to be submitted by 13 January 2011) but the system is not yet working.

The rules and procedures for the rights of way (namely access to public domain, expropriation and the constitution of public easements) are regulated by the same legislation, which also addresses the information that regulations laying down the procedures for the allocation of rights of way in public domain should have, said rules being binding upon public bodies, such as the State, Autonomous Regions and local authorities. All operators complained that, when it comes to the right to use the public domain, most municipalities are not charging the fees established under the legislation for granting rights of way but persist on attempting to charge operators higher fees than those applicable prior to the enactment of the abovementioned legislation.

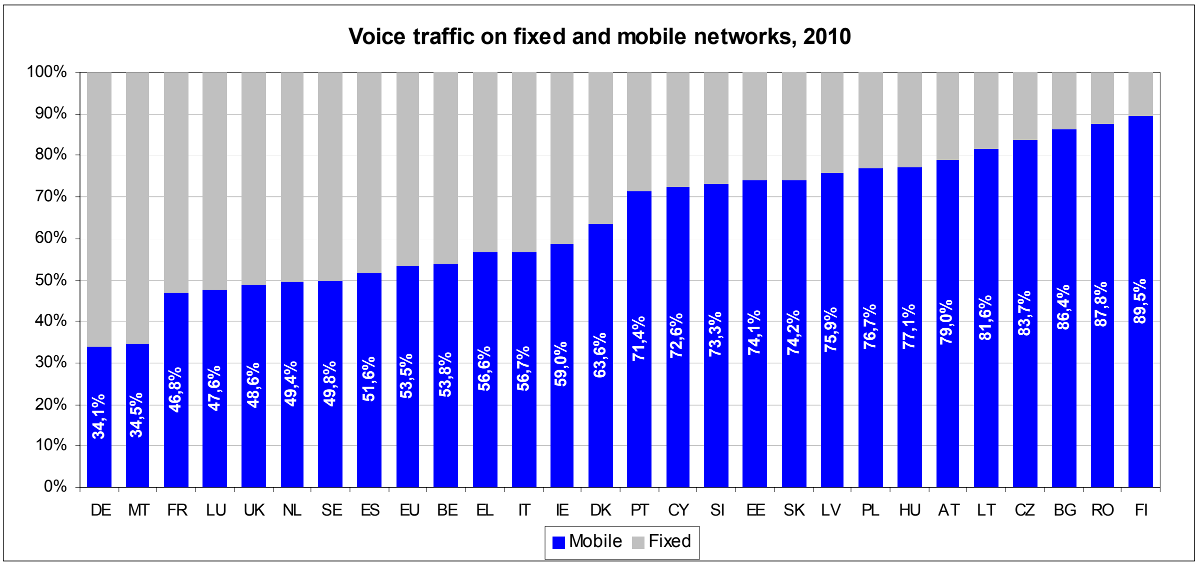
4.2. Plans

The regulator published, in February 2011, a study on the deployment of NGA networks, which showed that government initiatives and regulatory measures have had an impact on investment by operators. One of the key developments which strongly influenced the level of investments was the imposition of a cost-oriented, open and non-discriminatory access obligation to ducts, poles and other installations of public utilities, which are suitable for electronic communications networks. ICP-ANACOM is still working on the implementation of a centralised information system which will provide information on the different infrastructures and publicise construction works.

The Government signed in 2011 four contracts for the deployment of NGA networks in in rural areas, including the outermost regions of the Azores. The areas within each of the four zones were selected on the basis of the absence of investment in cable or alternative network infrastructures. The tenders were based on the principle of technological neutrality and open networks. The minimum speed to be guaranteed is 40 Mbps (downstream) per end-user. The roll out of the contracted services started in December 2011 and is underway until December 2013.

5. VOICE AND OTHER ECOMMUNICATIONS SERVICES

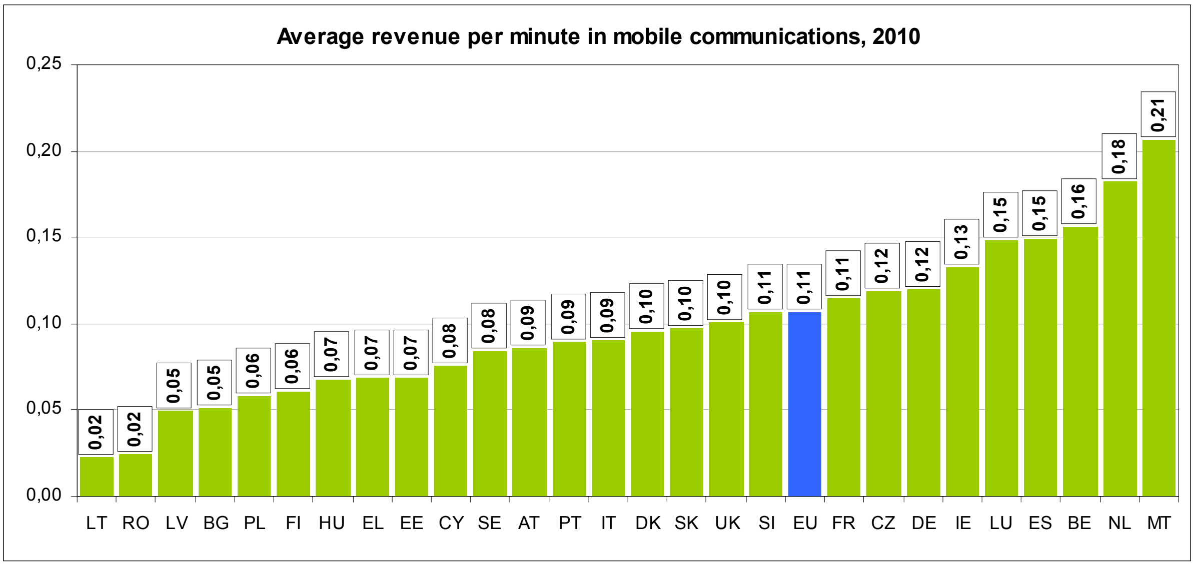
Mobile penetration was 156.4% in October 2011, increasing by almost 5 p.p. compared to October 2010. Fixed to mobile substitution remains important: in 2010: almost 71.4% of the *total voice traffic went over mobile networks, well above the EU average of 53.5%. In the fixed voice market the incumbent operator (Portugal Telecom) still had, in December 2010, an important market share by traffic volume of 59.5%, despite having lost some market share over the last year. The number of VoIP originated calls continues to increase, representing in December 2010 12.7% of traffic in the fixed sector, far below the EU average (23.1%). The switch-off of analogue broadcasting to digital broadcasting was completed on 26 April 2012.*



Source: Commission services

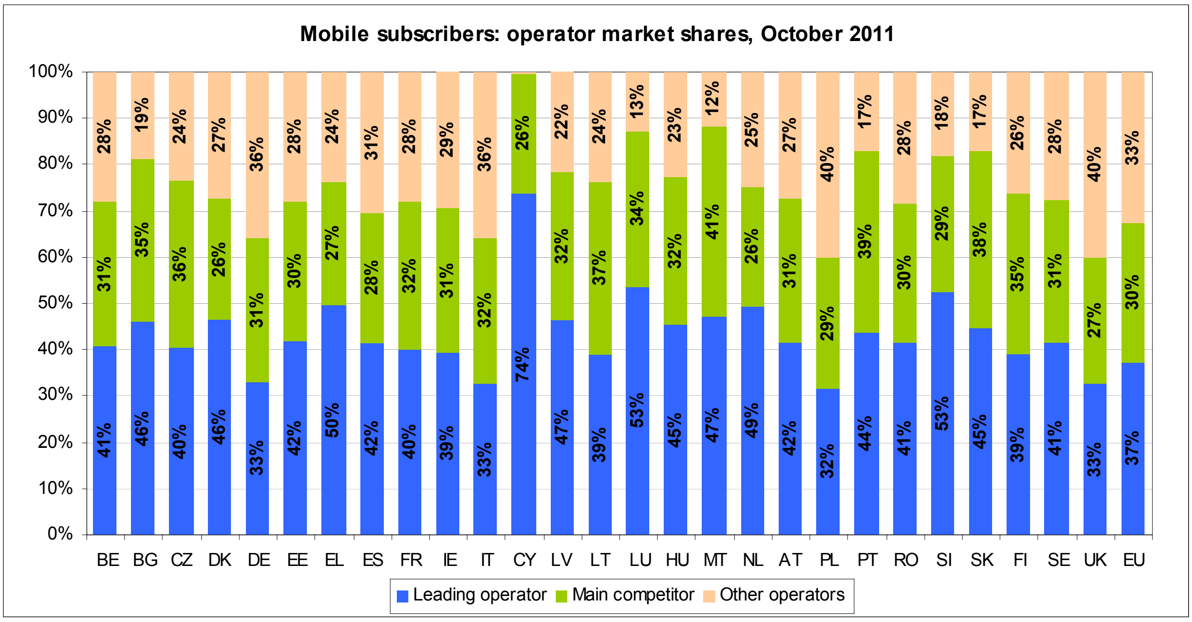
5.1. Mobile

Mobile penetration continued to grow, amounting to 156.4%, the forth highest penetration rate in the EU and well above the EU average (127%), which shows the intensive use of mobile services by subscribers. The average revenue per minute for mobile voice services in Portugal was in 2010 €0.09, which is close to the EU average (€0.11) and the annual average revenue per user (€156) decreased by 30 %, thus leading to an increasing gap *vis-à-vis* the EU average (€221**),** which also decreased by almost 9 %**.** Pre-paid cards dominate the market (72% of the overall subscriptions, ranking number 3 in EU).



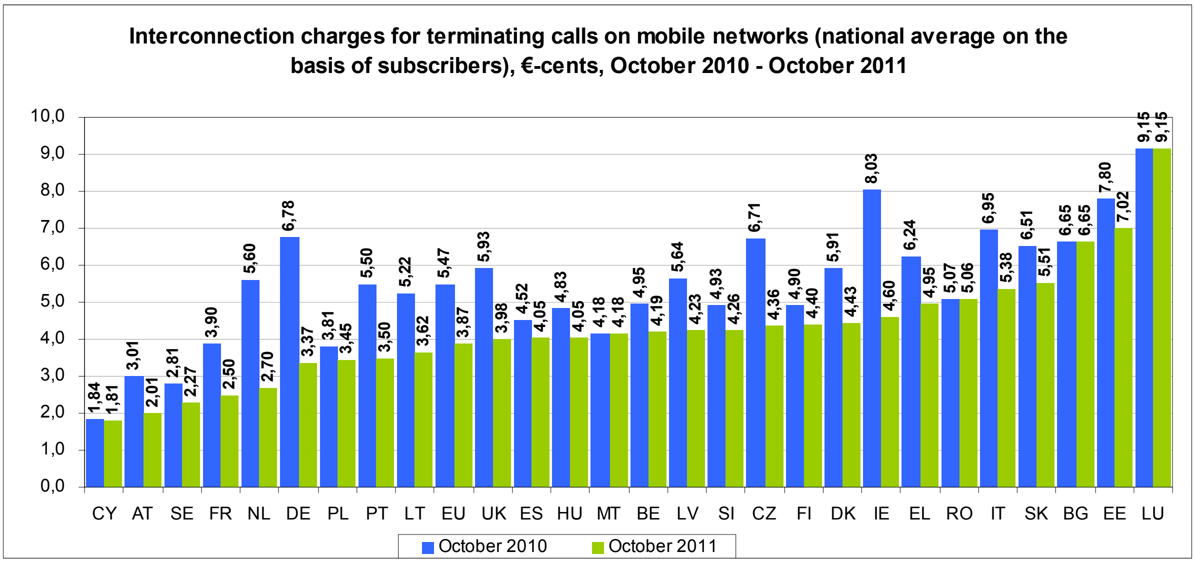
Source: Commission services

The market is dominated by two main operators which have 44% and 39% market shares, respectively. The two mobile virtual network operators (MVNOs) are currently offering a full range of mobile services, although their market share continues to be very low (1.4 %).



Source: Commission services

Mobile termination rates (MTRs) in Portugal have been symmetric since October 2009. In 2011, the level of MTRs continued the downward glide path set by ICP-ANACOM's decision of May 2010, thus decreasing from 6.5€/cts per minute before May 2010 to 3.5 €/cts per minute in August 2011. In line with the Commission's Recommendation on Termination Rates, ICP-ANACOM started developing a bottom-up pure LRIC model for MTRs in 2010. In April 2011, ICP-ANACOM launched a first consultation concerning the conceptual aspects of such model. Furthermore, in October 2011 the regulator issued a consultation on the practical implementation of the bottom-up pure LRIC model, proposing a new glide-path for MTRs in 2012, which is based on the results of the model. Following the consultation procedure, a new draft decision was approved and it was notified to the European Comission in March 2012. According to this proposal, MTRs will go down to 2.77 €/cts per minute in April 2012 and reach 1.27 €/cts per minute in December 2012.



Source: Commission services

The sharp reduction of termination rates will have a different impact on both fixed and mobile operators, depending on their positions in the two markets, and was therefore highly debated. Small mobile operators and fixed operators urged the regulator to adopt the final decision, pointing out that high termination rates perpetuate the transfer of resources to the main mobile operators, while promoting competitive distortions among mobile operators due to the exploitation of tariff mediated network effects.

Whereas the tariff provisions of the amended EC Roaming Regulation were reportedly applied by all operators, technical problems experienced by operators were reported in the implementation of the cut-off limit and the related warning message. These problems include, for instance, the incorporation of MMS as part of consumption towards the cut-off limit and the implementation of the cut-off limit for data roaming for pre-paid customers.

5.2. Fixed

The share of fixed voice in the total voice traffic continued to decline also in 2010, down to 28.1 % from 31.5 % in 2009. In terms of the incumbent's share on the fixed voice market, a decreasing trend continued to be verified: the market share for all types of calls in terms of traffic volume declined from 62% in December 2009 to 59.5% in December 2010.

The number of VoIP originated calls continues to increase, representing in December 2010 12.7% of traffic in the fixed sector, far below the EU average (23.1%). As of July 2011, 40.7% of subscribers were using a provider other than the incumbent operator for direct access (the second highest figures in the EU). This figure shows that the use of alternative operators for the provision of fixed voice services has significantly increased in recent years, due to the increased take-up of bundled offers from cable and LLU operators, and the provision of fixed telephone services using mobile frequencies.

As far as market regulation is concerned, in April 2010 ICP-ANACOM notified a revised RIO (reference interconnection offer) to the Commission under the Article 7 consultation procedure. In its comments the Commission not only urged the regulator to carry out a new market analysis as soon as possible but also pointed out, *inter alia*, to the lack of legal certainty stemming from the retroactive application of new tariffs and requested ICP-ANACOM, in the forthcoming market review, to align its cost accounting methodology/model with the cost accounting principles recommended in the Termination Rates Recommendation. Regarding, in specific, fixed termination rates (FTRs), the Commission called on ICP-ANACOM, within the framework of a 2010 notification concerning the modification of remedies, to carry out a full review of the relevant market. ICP-ANACOM has been working on the review of the relevant market but no decision has been taken yet.

Following the adoption by the regulator, in October 2010, of the final measures concerning the markets for retail leased lines, wholesale terminating segments of leased lines and wholesale trunk segments of leased lines, obligations were maintained in the terminating segments market and in the non-competitive routes of the market for wholesale trunk segments. Ethernet leased lines were included in the relevant markets and the obligation to publish a new leased lines offer, including the provision of Ethernet services, was specifically imposed on the SMP operator. Whilst the provision of traditional lines was subject to a cost-orientation obligation, the provision of Ethernet lines was subject to a retail-minus rule. The incumbent operator has appealed ICP-ANACOM´s decision before the Court but the case is still pending. Following the adoption of the regulator's decision, in December 2010, a specific Ethernet Leased Lines offer (known as ORCE) was published (the traditional leased lines offer, known as ORCA, was published in 2006). In November 2011 the regulator issued a public consultation on the revision of both reference offers (ORCA and ORCE) proposing, among other measures, a decrease of 35%, 40 %, and 45% in the prices of 2Mbps, 34 Mbps, 155 Mbps leased lines, respectively and an increase in the level of service of the ORCE. A final decision is pending.

5.3. Broadcasting

The main platforms for the provision of broadcasting services are cable (36.2%) and terrestrial TV, followed by satellite (17.1%) and IPTV (18.9%), which continues to experience significant growth (+ 4.7 p.p. vs previous year). Portugal has very high cable network coverage, covering almost three out of four households, with several regional cable operators and one main nationwide cable operator.

In general, the switch-off of analogue terrestrial broadcasting is progressing according to the time table, with the last Regions expected to become all digital by 26 April 2012 in accordance with Resolution of the Council of Ministers 26/2009, of 17th March and ICP-ANACOM's decision of 24 June 2010 approving the Switch-off Plan. The first phase of the analogue switch-off began in January 2012. On this date, analogue transmissions ceased mainly in the coastal areas of mainland Portugal. The second phase was accomplished in the 22nd March 2012, when analogue transmissions ceased in the Azores and Madeira Islands. The third and last phase shall take place on April 26, when analogue transmissions in all remaining inland areas shall cease.

The regulation of the market for broadcasting transmission services is based on the 2007 decision which maintained to the incumbent operator the obligations imposed under the concession contract; further obligations were mandated as well in order to ensure transparency and accounting separation. In October 2011 the regulator issued a consultation on a draft measure concerning the amendment of remedies imposed in the market, which was notified to the Commission on February 2012. The amendments proposed by ICP-ANACOM concern the price control remedy imposed in the market for (terrestrial) television signal broadcasting and distribution services (analogue), more specifically a reduction of the analogue broadcasting service charges. The Commission urged ICP-ANACOM to carry out a new market analysis given that the market has undergone significant changes since the last review.

In May 2011 the Entidade Reguladora para a Comunicacão Social (ERC) adopted a final decision of the “Specification of the television services and complementary services subject to the "Must–Carry" and Must-Delivery obligations in electronic communications networks”, acknowledging the legal and regulamentary, imposition that the DTT Platform operated by the incumbent operator be subject to an obligation to carry out the four FTA Television channels, plus the two regional channels in each Autonomous Region of Azores and Madeira, and to reserve capacity to a fifth channel yet to be launched and to a high definition channel shared by the FTA television operators not yet in place also. ERC adopted also a decision on 29 March 2012 maintaining the must–carry and must-delivery obligations, under the same terms of the previous decision of May 2011.

6. SPECTRUM MANAGEMENT

The NRA has finalised the multiband spectrum auction of the 450 MHz, 800 MHz, 900 MHz, 1800 MHz, 2.1 GHz and 2.6 GHz frequency bands. The final value of licences amounted to 372 million Euros. There were three winning bidders; no new market entry took place.

By determination of July 2011, ICP-ANACOM has approved the version of the National Table of Frequency Allocations (NTFA) which will apply in Portugal in 2011-2012. This NTFA (referred as 2010/2011) updates the previous version of the NTFA (NTFA 2009/2010), especially with regard to information on frequency bands which are reserved or to be made available in 2011-2012 and also with regard to the section on spectrum usage which is exempt from radio licensing.

In November 2011 the regulator carried out a multiband spectrum auction in order to award frequency usage rights in the 450 MHz, 800 MHz, 900 MHz, 1800 MHz, 2.1 GHz and 2.6 GHz bands, for a period 15 years, renewable by 15 years. Therefore the auction results will influence the structure of the market for the next decades.

The final value of licences amounted to 372 million Euros. There were three winning bidders; no new market entry took place. In the auction, 25% of the spectrum auctioned remained unsold. The regulator is evaluating the situation regarding the unsold spectrum; however no concrete plans have been made public yet. According to the auction regulation, the holders of at least 2×10 in 800 MHz or at least 2×10 MHz in 900 MHz band (including previous spectrum holdings in the 900 MHz band) are subject to an obligation to allow access to their networks in each of these bands on non-discriminatory grounds. In this regard they have to, upon request, negotiate and give access to mobile virtual operators (MVNO).They are also obliged to negotiate national roaming agreements in order to provide national roaming to third parties under certain conditions.

The refarming process (i.e. the implementation of Decision 2011/251/EU) in the 900 MHz and 1800 MHz bands already took place, but operators, at the end of the reporting period, haven't started yet its implementation. Harmonisation Decisions have been implemented in Portugal, including the transmission of information on rights of use in the EFIS database, still due in 2010.

7. CONSUMER INTEREST

7.1. 116 - Harmonised numbers for services of social value

Two of the harmonised numbers for services of social value are operational in Portugal: the hotline for missing children (116000) and the child helpline (116111).

Two of the harmonised numbers for services of social value are operational: the hotline for missing children (116000) and the child helpline (116111), which is currently managed by a well-established no profit organisation dealing with protection of children in general. Awareness on the availability of these numbers remains low; according to the last 2011 Eurobarometer survey, only 34 % of the citizens were aware of the two 116 numbers being provided. In addition, only 25% of the respondents considered that people in Portugal received adequate information on these numbers**.** Nevertheless, children helpline is used by a relatively high proportion of people in Portugal (7%), which represent the highest figure and place the country above the EU average (2%).

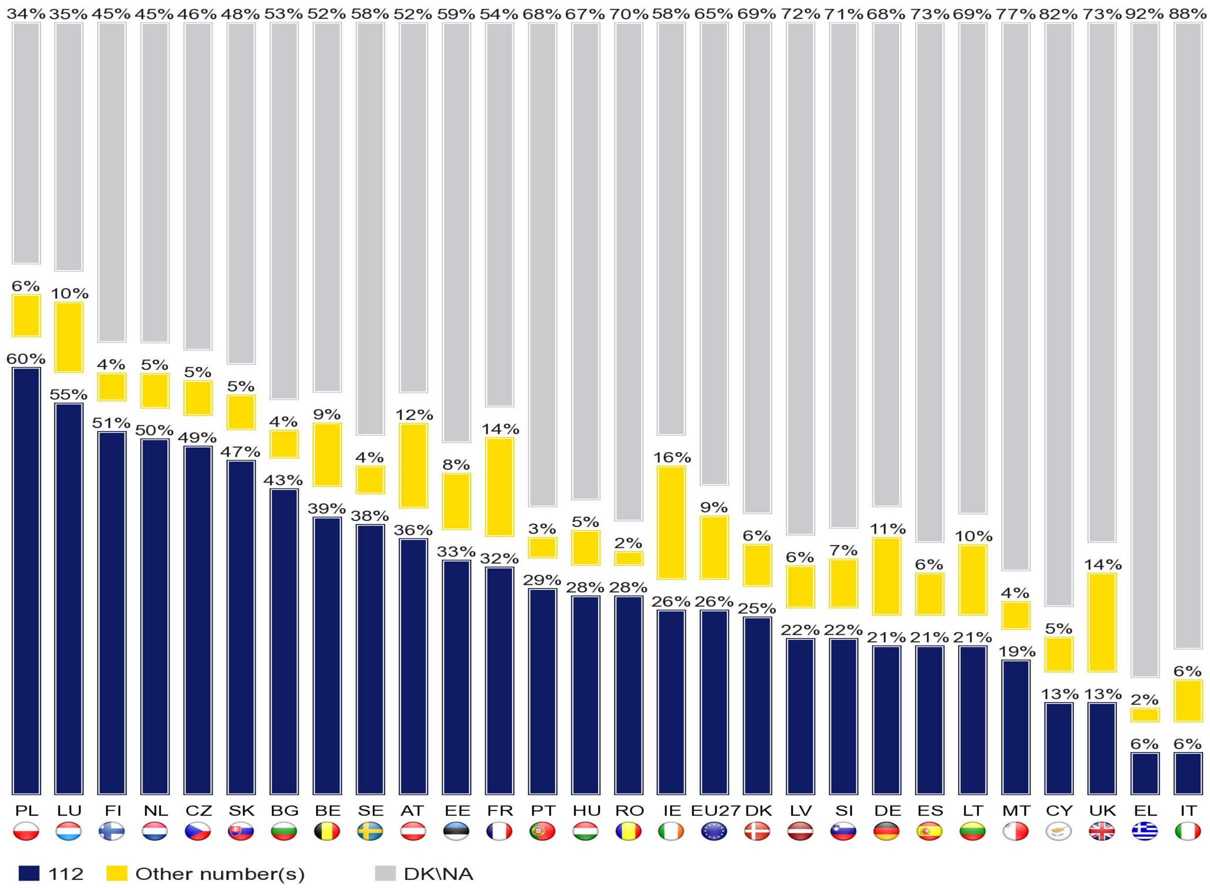
7.2. 112 - European Emergency number

Awareness of 112 as the European Emergency number stands at 29% of the population.

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

According to the latest special Eurobaromoter survey, 29 % of the Portuguese citizens recognize 112 as the number to call for emergency services from anywhere in the EU. Besides the European Emergency number 112, two other emergency numbers are available at the national level. Caller location information is provided via push system, using a centralised database which is updated on a daily basis. For mobile calls, the cell ID is provided. Emergency service centres can handle calls in English.

7.3. Net neutrality and Quality of Service

No major issue has been reported by the different stakeholders, although there seems to be overall support for more transparency.

No major issue has been reported by the different stakeholders, although there seems to be overall support for more transparency.

7.4. Consumer complaints, tariff transparency

The most frequent source of concern, for the complaints directly addressed to ICP-ANACOM, continue to be contractual issues and billing. Enhancement of transparency remains a major objective of the NRA.

The regulator is not competent for issuing binding decisions on conflicts between end-users and operators, but can impose sanctions on operators breaching regulatory obligations. Alternative dispute resolution comes mainly under the responsibility of the Arbitrations center; in 2011 the procedure has became mandatory for the operators.[24] The national arbitration centre, specifically dedicated to electronic communications consumer issues has not yet been established. The electronic communication sector is perceived as a problematic one from the consumer point of view according to the main consumer association. For the complaints directly addressed to ICP-ANACOM, the main issues continue to be contractual issues and billing.

According to ICP-ANACOM's determination of April 2006 information on prices, tariffs and quality of service shall be published in the websites of providers. The determination has been revised in October 2011, to be in line with the new Regulatory framework and to ensure that more detailed, effective and transparent information on publicly available electronic communications services is provided to end users. The new determination foresees in particular that the relevant information shall be in respect of standardised offers made available to the public (offers to the residential segment and also standardized[25] offers addressed to the non residential segment). Operators shall make available this information also for consultation and printing in sales points and in door to door sales. Operators are also obliged to provide more information on roaming services (quality of services, coverage, and process). Furthermore, ICP-ANACOM launched in June 2011 a new tool (COM.Escolha), to consult and compare process and simulate consumption within Internet, mobile and fixed telephone and bundles of these services, for the residential segment. The simulations are based on consumption profile defined by the user. The tool also allows to combine more than

[24] Law n° 6, of 10 March 2011.

[25] Standard offers mean those offers which include common terms and conditions of service provision, corresponding to a pattern determined a priori in a contract or standard contract, as well as those in which the service user may only enter into a contract in predefined terms.

one service from different providers, allowing consumers to build a package of tailored services, in order to increase tariff transparency.

7.5. Number portability

The total amount of ported numbers stayed stable with 106 787 mobile numbers and 263 708 fixed numbers ported. According to the new law, number portability should be made within one day.

The number of fixed ported numbers decreased in the last year (263.708 porting transactions between January and September 2011 compared to 269.207 the previous year); in contrast, the use of mobile number portability, moderately increased, although the value remains low (106.787 porting transactions between January and September 2011 compared to 100.385 the previous year). The low churn in the mobile market is a combination of factors, such as the strong network effects reinforced by differences between on-net and off-net tariffs, a preference for prepaid services (sometimes simultaneously with more than one operator) and handset subsidisation. ICP-ANACOM reported that average period for porting number is, in 2011, (i) 3,57 working days for fixed numbers and (ii) 3,63 working days for mobile numbers. Average observed time is measured from the date when the recipient operator submits the request to the donor operator, which is 2 days. The regulator has adopted on March 2012 a new procedure aiming at ensuring number portability in accordance with the 2009 revised regulatory framework, by establishing that the number is ported within one working day from the moment the client submits its request, unless specific exception. The decision by the regulator followed the public consultation held on October 2011. In September 2011 the regulator imposed fines on several operators for having breached portability rules.

7.6. Universal service

In 2011, the regulator has approved the decisions on the definition of excessive burden and on the methodology to be used for calculating the net costs borne by the incumbent with the provision of the universal service. Furthermore, in February 2012, it approved the report of the public consultation and a decision on the specifications that the universal service provider(s) will have to meet when providing the different elements of the universal service.

Since the designation of the universal service provider in accordance with the Universal Service Directive had not been carried out, the Commission has launched an infringement, since 2005, which still pending.

Following the infringement proceedings started by the Commission in 2005, in November 2010, the Court of Justice (CJ) ruled that Portugal had failed to fulfil its obligations under the Universal Service Directive (C-154/09). Furthermore, the Commission requested the Portuguese authorities to take the necessary steps in order to comply with the judgment, by ensuring that an efficient, objective, transparent and non-discriminatory mechanism for the designation of the universal service provider(s) is established. Since the designation of the universal service provider in accordance with the Universal Service Directive had not been carried out, the Commission has decided, on 22 March 2012, to refer Portugal to the CJ, with the proposal to impose financial sanctions.

On 12 March 2009, the CJ also ruled that Portugal had failed to fulfil its obligations under the Universal Service Directive concerning the availability of a comprehensive directory and directory enquiry service. Since 30 May 2010 the universal service provider has been providing a comprehensive directory enquiry service. Moreover, subscribers' data from all operators were gradually included in the comprehensive paper directories provided by PTC, and the process was completed in all regions by 14 June 2011.

A public consultation was launched by ICP-ANACOM in March 2011 on the future of public payphones in the framework of universal service which pointed to a significant reduction of their coverage. The report of the public consultation was approved in July 2011.

In June 2011, the regulator has approved the decisions on the definition of excessive burden and on the methodology to be used for calculating the net costs borne by the incumbent with the provision of the universal service. Notwithstanding on 18 August 2011, ICP-ANACOM has amended its decision on the methodology to be applied for calculating the net costs of the universal service following a complaint by the incumbent. Such decisions were appealed respectively by the incumbent and by three other operators in 2011.

In November 2011 the Government launched, in coordination with ICP-ANACOM, a public consultation on the process of designating the provider(s) of the universal service of electronic communications in Portugal. Furthermore, in February 2012, ICP-ANACOM has approved the report of the public consultation and a decision on the specifications that the universal service provider(s) will have to meet when providing the different elements of the universal service. The draft tenders cover respectively the different elements of the universal service obligations, among different geographic areas. The scope of the service has remained unchanged, given that at the moment the inclusion of broadband within the scope of universal service is not envisaged.

7.7. ePrivacy

The part of the Citizens' Right Directive which modifies the e-privacy Directive has not been transposed yet.

Data protection falls under the competence of the Data Protection authority. The part of the Citizens' Right Directive which modifies the e-privacy Directive has not been transposed yet.

EUROPEAN COMMISSION

Information Society and Media Directorate-General

Electronic Communications Policy

Implementation of Regulatory Framework

18 June 2012

ROMANIA

2011

Telecommunication Market and Regulatory Developments

This report is a Commission Services working document, issued as part of the Scoreboard 2012:

http://ec.europa.eu/information_society/digital-agenda/scoreboard/

Address : Commission européenne / Europese Commissie, B-1049 Bruxelles / Brussel
Email : infso-b2@ec.europa.eu

ROMANIA

10. MAIN MARKET & REGULATORY DEVELOPMENTS

Development of the sector

Revenues in the electronic communications sector of Romania in 2010 totalled €3.6 billion, which was 7.2% less than the previous year. In particular, the revenues of the mobile sector experienced further decline of 9,2% after a 19.0% fall in 2009, from €2.259 billion to €2.050 billion, whereas the fixed sector recorded a slighter decrease of 7.2%, from €1.186 billion to €1.100 billion. This indicates that the divide between the two sectors has decreased, but the mobile is still almost double than the fixed.

The total value of tangible investment in electronic communications networks in 2010 amounted to €569 million (0.46% GDP). This represents a further reduction of 13,3% after the one experienced in 2009 (over 36%). Almost half of the investment was carried out by mobile operators (€256 million), while the cumulative investment of all alternative operators in fixed networks is higher (of €129 million) than the investment in fixed networks of the incumbent (€108 million).

The national strategies on the development of broadband and the digital switchover process adopted in 2009 have not been followed up with operational plans. The Strategy on digital switchover was amended by the Government to postpone the analogue switch off deadline till 2015.

In November 2011 the Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM) notified the wholesale markets on call termination on individual public telephone networks provided at a fixed location as well as voice call termination on individual mobile networks. In its comments, the Commission invited ANCOM to end the transition phase at the end of 2012, to reconsider the slope of its current glide path and aim for a cost-efficient target rate to be reached already at the beginning of 2013 in order to comply with the EC Recommendation on termination rates.

Rules for 1 day portability is still to be implemented.

Progress in Broadband development and take-up

The fixed broadband penetration reached 15.3% in January 2012, compared to 14.0% in January 2011, but it still accounts for the lowest in the EU (the EU average stood at 27.7% in January 2012). As regards the infrastructure used, the Romanian broadband market is characterised by platform based competition. As far as the market structure is concerned, 1,010 operators provide fixed broadband internet access, of which 41 by cable network, 210 by fibre, 215 by radio, 17 by xDSL, 861 by UTP/FTP cable[26]. The market share of the incumbent in DSL lines stayed at 99.9%, but the incumbent's market share in total broadband lines remained below the EU average, (30%, compared to the EU average of 76%).

[26] Source: Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM)

Independence and effectiveness of the NRA

Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM) is an autonomous public authority with legal personality, under parliamentary control, financed exclusively from own revenues. The financing of ANCOM does not rely on State budget resources, but is exclusively based on extra-budgetary revenues collected from the market players. However, the Commission raised concerns regarding the adequacy of the human resources of the NRA following the planned remuneration of its staff according to the single public sector salary grid. In addition the Commission also expressed concerns regarding the authorisation regime which seem not to be in line with EU law.

Implementation of the Framework

On the 14th of December 2011, the Romanian Government approved the Government Emergency Ordinance no. 111/2011 on electronic communications which transposed the EU 2009 regulatory framework for electronic communications (the Framework Directive, the Authorisation Directive, the Access Directive and the Universal Service Directive) into national legislation[27], with the exception of the e-privacy related provisions. The modifications brought to the 2002/58/EC Directive by the 2009/136/EC Directive were recently transposed into Romanian law by a Government Emergency Ordinance approved on the 3rd of April 2012.

Spectrum management

The Strategy on digital switchover provides for the analogue switch in 2015. On 28 December 2011, ANCOM decided to extend the expiring licence with one year and organise an auction based on a competitive selection procedure in 2012 on the 900 and 1800 MHz bands. . A first set of licences will cover the period of 1 January 2013 – 5 April 2014, aligning them with the expiry dates of other existing licences. The second set of licences will be valid as of 6 April 2014. For the licences which were extended, the two operators paid a 6.4 million euro licence tax, a value that is proportionate with the amounts paid for obtaining the licences in 1996, computed by ANCOM by indexing the historical licences values.

Citizens and consumer protection

Availability of 116 harmonised numbers has been good in Romania, while awareness levels remained low at 13%. 112 is the sole Emergency Number in Romania and it is reported to function well. In June 2011 ANCOM established the quality indicators for the provision of the Internet access service and their publication. Interactive Tariff Guide through an online "price calculator" is foreseen to be implemented. The NRA adopted the new bylaws on the Implementation of Universal Service in the Field of Electronic Communications. The new regulatory framework on e-privacy has been recently transposed into national law by a Government Emergency Ordinance approved on the 3rd of April 2012.

11. NATIONAL REGULATORY AUTHORITY

The Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM) is an autonomous public authority with legal personality, under parliamentary control, financed

[27] The Emergency Ordinance was published in the Official Journal no. 925/27.12.2011.

exclusively from own revenues. The financing of ANCOM does not rely on State budget resources, but is exclusively based on extra-budgetary revenues collected from the market players. However, the Commission raised concerns regarding the adequacy of the human resources of the NRA following the planned remuneration of its staff according to the single public sector salary grid. In addition the Commission also expressed concerns regarding the authorisation regime which seem not to be in line with EU law.

On 3 November 2009[28] the Commission raised concerns in relation to the involvement of government departments (the Ministry of Communications and Information Society) with regulatory tasks (allocation and assignment of radio frequencies) in the ownership and control of state-owned telecom companies, contrary to the requirements of Article 3(2) of the Framework Directive. The Romanian Authorities notified the relevant amending legislation by 9 May 2011 which satisfactorily addressed the grievances raised by the Commission.

In November 2010, the Commission services have raised concerns on the impact of the legislative measures in the context of the economic downturn on ANCOM, in order to assess their effects on compliance with the requirements of the Framework Directive. In the response sent by the Romanian authorities in February 2011 it is not clear to what extent the inclusion of the ANCOM staff in the ambit of the single public sector salary grid affects the functioning of the NRA. The Commission will continue to look into this matter.

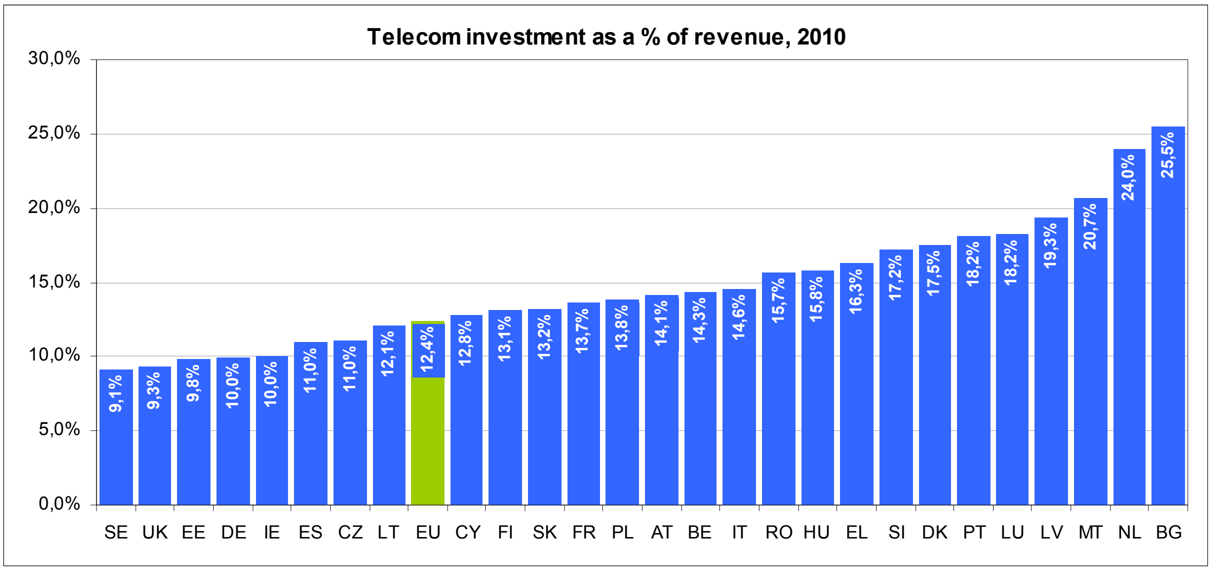
The Commission expressed its concerns in June 2011 on the requirements imposed by ANCOM in the Romanian general authorisation regime which seems to go beyond the restrictive list of conditions provided in the Authorisation Directive. Despite the answer of the Romanian authorities the Commission's services have serious doubts on the compliance of the Romanian authorisation regime and its application with EU law. The Commission will continue to look into this matter.

12. REVENUES AND INVESTMENTS

Revenues in the electronic communications sector of Romania in 2010 totalled €3.6 billion, which was 7.2% less than the previous year. In particular, the revenues of the mobile sector experienced further decline of 9,2% after a 19.0% fall in 2009, from €2.259 billion to €2.050 billion, whereas the fixed sector recorded a slighter decrease of 7.2%, from €1.186 billion to €1.100 billion. This indicates that the divide between the two sectors has decreased, but the mobile is still almost double than the fixed.

The total value of tangible investment in electronic communications networks in 2010 amounted to €569 million (0.46% GDP). This represents a further reduction of 13,3% after the one experienced in 2009 (over 36%). Almost half of the investment was carried out by mobile operators (€256 million), while the cumulative investment of all alternative operators in fixed networks is higher (of €129 million) than the investment in fixed networks of the incumbent (€108 million).

[28] SG(2009)D/8304;C(2009)8218



Source: Commission services

13. BROADBAND

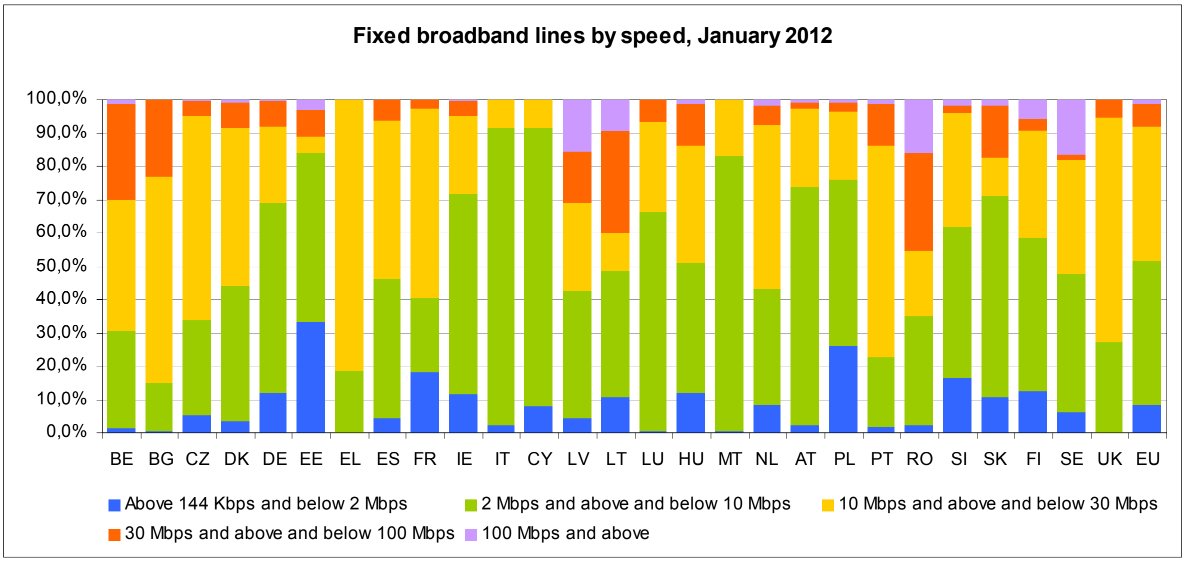
The national strategies on the development of broadband and the digital switchover process adopted in 2009 have not been followed up with operational plans. The Strategy on digital switchover was amended by the Government to postpone the analogue switch off deadline till 2015.

The fixed broadband penetration reached 15.3% in January 2012, compared to 14.0% in January 2011, but it still accounts for the lowest in the EU (the EU average stood at 27.8% in January 2012). As regards the infrastructure used, the Romanian broadband market is characterised by platform based competition. As far as the market structure is concerned, 1,010 operators provide fixed broadband internet access, of which 41 by cable network, 210 by fibre, 215 by radio, 17 by xDSL, 861 by UTP/FTP cable[29]. The market share of the incumbent in DSL lines stayed at 99.9%, but the incumbent's market share in total broadband lines remained below the EU average, (from 30%, compared to the EU average of 76%).

13.1. Market situation and regulatory developments

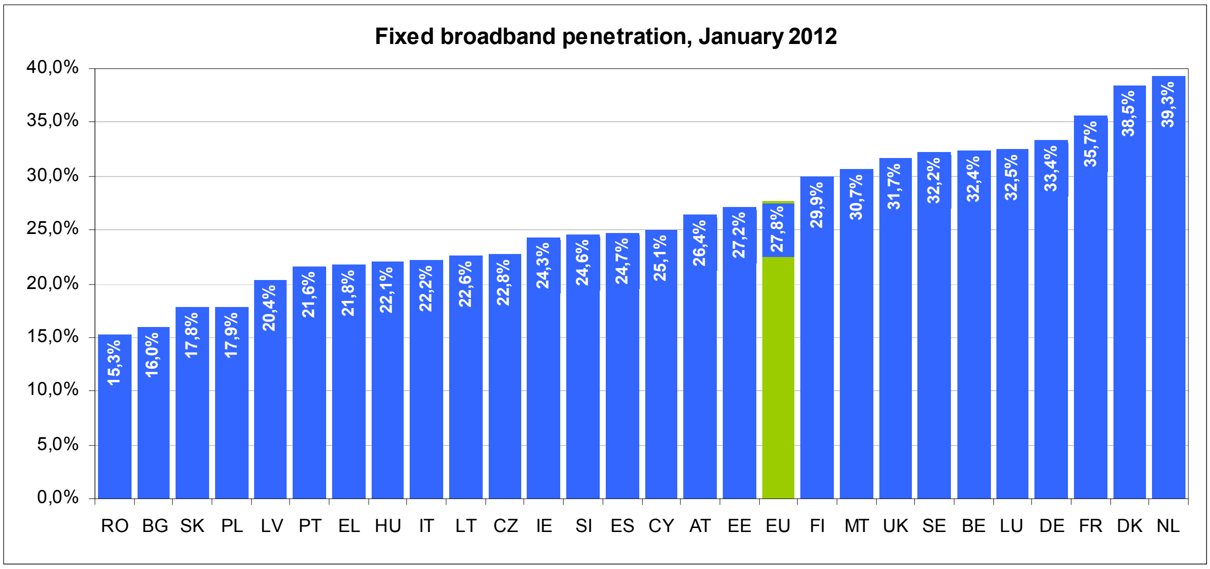
As of January 2012, 70% of the 3 277 642 active retail broadband lines were non DSL. The number of ISPs that were commercially offering high speeds has been growing rapidly in the past years. As a result, the data for December 2011 indicated that 2,1% of connections offered speeds of up to 2Mbps, 33% between 2 and 10 Mbps, 19,7% between 10 and 30 Mbps, 29,2% between 30 and 100 Mbps. The market share of FTTH is considerably higher (16%) than the EU average of 1.3%.

[29] Source: Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM)



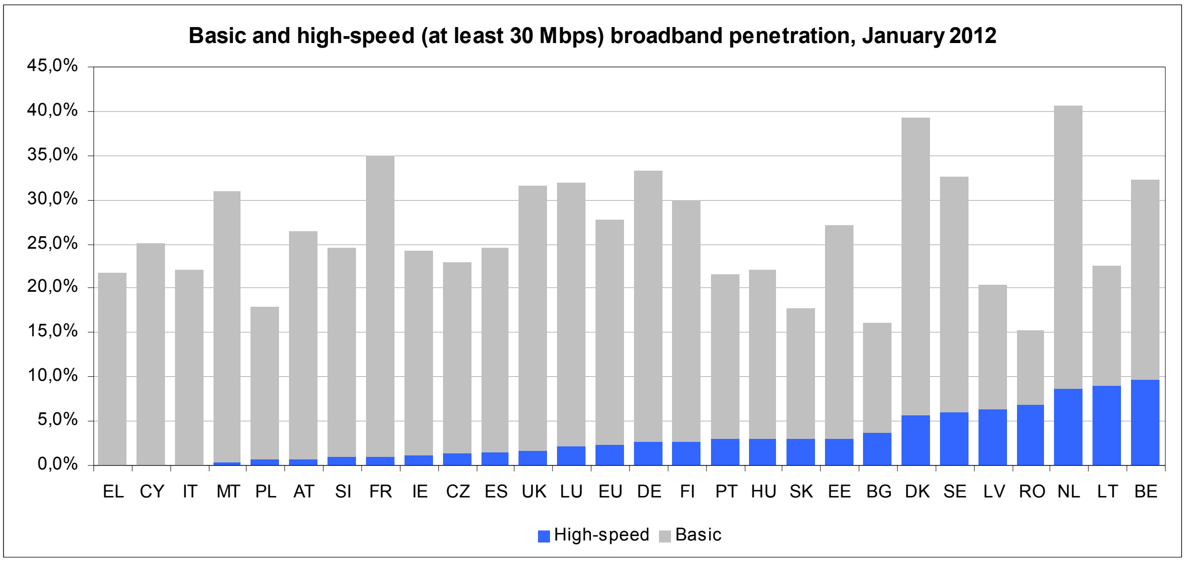
Source: Communications Committee

Given the considerable market share of the incumbent in DSL lines, the take-up of LLU was still very low. 8 operators are using the incumbent's network in order to provide internet services, out of 13 operators having LLU agreements with the incumbent[30]. The obligations imposed in 2010 on the incumbent following the analysis of the wholesale (physical) network infrastructure access market, including lower caps did not have effect on the take up of these services.



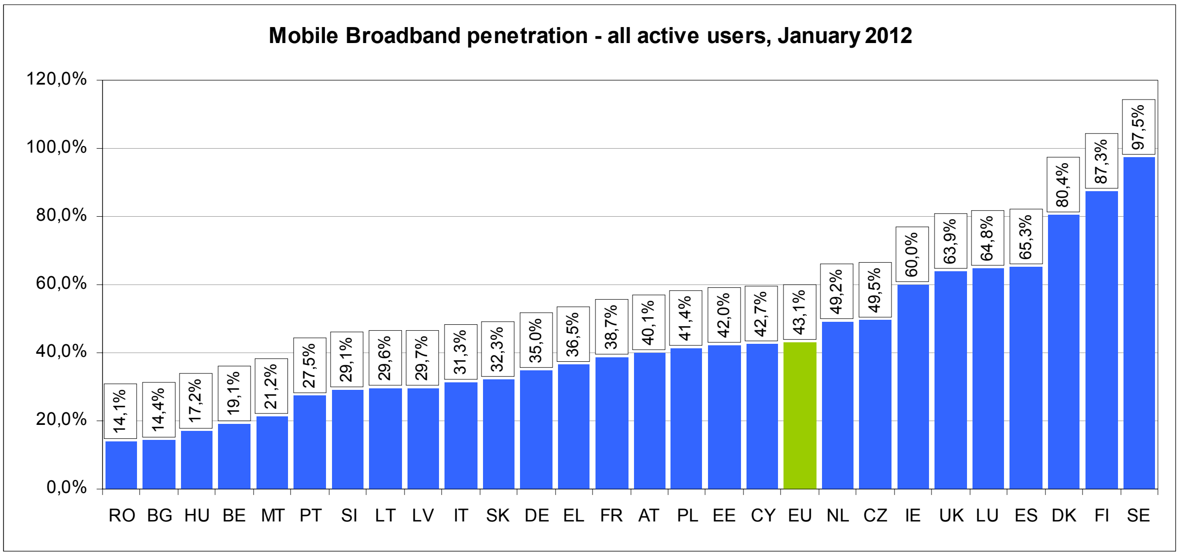
Source: Communications Committee

[30] Source: Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM)



Source: Communications Committee

Mobile broadband penetration in Romania, based on the number of all active users, stood at 14,1 %, well under the EU average of 43,1%. In case of dedicated data service cards/modems/keys only, the penetration rate is 5,1%, below the EU average of 8,1%.



Source: Communications Committee

The Romanian legislation did not transpose yet the new provisions of the EU regulatory Framework on rights of way and facility sharing. The proposed legislation on electronic communication infrastructure, scheduled to be adopted in the first half of 2012, will address these issues. Market actors and stakeholders complained that in the absence of clear legal requirements and deadlines, deployment of network infrastructure is unduly hindered by the permitting process and the arbitrary decisions of some local authorities.

In 2010 ANCOM reviewed the wholesale (physical) network infrastructure access market, imposing a full set of obligations on the incumbent's copper network. The full LLU tariff went down to €6.02/month (-28%), while the shared access one went down in steps to reach

€1.11/month by 1 July 2011 (-74%). While the new caps are effective from November 2010 the uptake of both full and shared LLU is still very low due to the platform based competition. The Commission asked ANCOM, *inter alia* in its comments, to impose access to the incumbent's FTTH lines, to re-assess the need to mandate access to ducts, and to consider whether circumstances at national level may require extending the migration period from two to five years. ANCOM considered that access to ducts should be regulated only in the case of high uptake of LLU, which currently is not the case.

As regards wholesale broadband access, in 2010 ANCOM found that the retail market for broadband internet access was effectively competitive in the absence of *ex ante* regulation of wholesale broadband access. ANCOM considered therefore that regulating the WBA market in Romania is neither necessary nor justified given the high level of infrastructure-based competition (over the providers' own access networks) in the retail market, the availability of the unbundled access to the local loop, as well as the positive impact expected to be achieved following the introduction of cost-oriented tariffs for access to the local loop. The Commission welcomed ANCOM's commitment to carefully monitor the development of differences in the competitive conditions between localities and carry out a new market review as appropriate. Furthermore, the Commission invited ANCOM to regularly assess all relevant structural and behavioural factors which would raise barriers to entry into the retail broadband market, especially in rural areas, and would require a regulatory intervention at wholesale level.

The provisions of the EU regulatory framework on rights of way, co-location and facility sharing are planned to be transposed in the law on electronic communications infrastructure which has been at an advanced stage of the legislative process for more than a year.

13.2. National Plans, private & public investments

The national strategies on the development of broadband and the digital switchover process adopted in 2009 have not been followed up with operational plans. The Strategy on digital switchover was amended by the Government to postpone the analogue switch off deadline till 2015.

Rights of way and facility sharing should be addressed more efficiently and consistently by the long overdue law on electronic communication infrastructure.

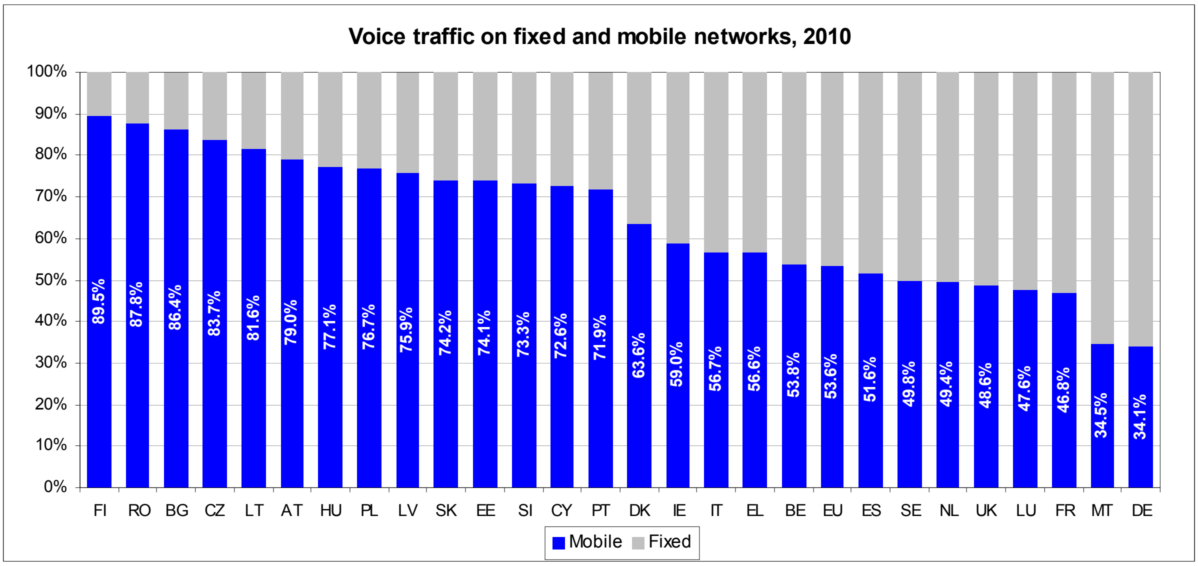
For the last couple of years Romania intends to use 84 million Euros of the EU structural funds to finance an infrastructure project which would have the aim of deploying broadband networks in underserved areas (so called "white areas"). While the Commission supports the goals of the project, it expressed concerns on the delays in presenting a fully documented project with a clear implementation model. After having set up in December 2010 a special Committee for this project which had the goal of developing an implementation model, consisting of representatives of the Ministry of Communications and Information Society, ANCOM, the Authority for the Coordination of the Structural Funds, the Management Authority for the operational programme, the Competition Council the ownership of the proposed infrastructure was not settled before October 2012. Despite the intensified efforts reported by the Ministry for Communication and Information Society the project proposal is still not finalized in order to be notified to the Commission. The Romanian authorities were repeatedly informed on the risk of delaying the project past the timeframe in which it would still be eligible for EU funding under the current financial programming period, leading to the failure to absorb the dedicated EU structural funds.

14. VOICE AND OTHER ECOMMUNICATION SERVICES

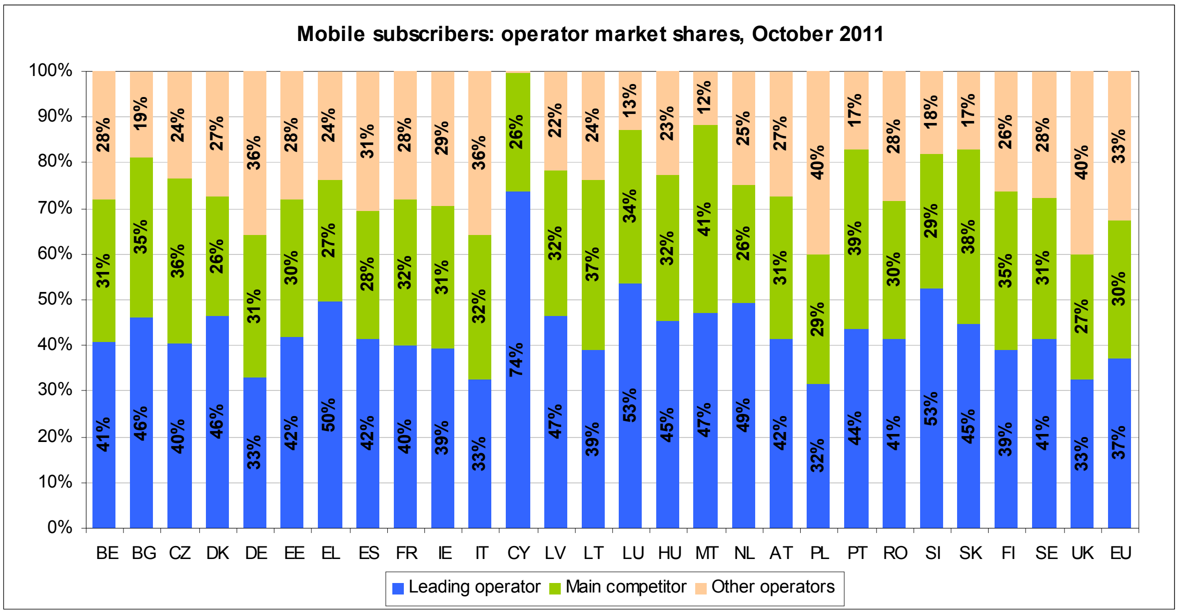
In November 2011 Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM) notified the wholesale markets on call termination on individual public telephone networks provided at a fixed location and voice call termination on individual mobile networks. Following the market analysis, on 16 January 2012 ANCOM adopted the markets identification by decision 34/2012 followed by the individual SMP decisions on the 24 January 2012.

14.1. Mobile services

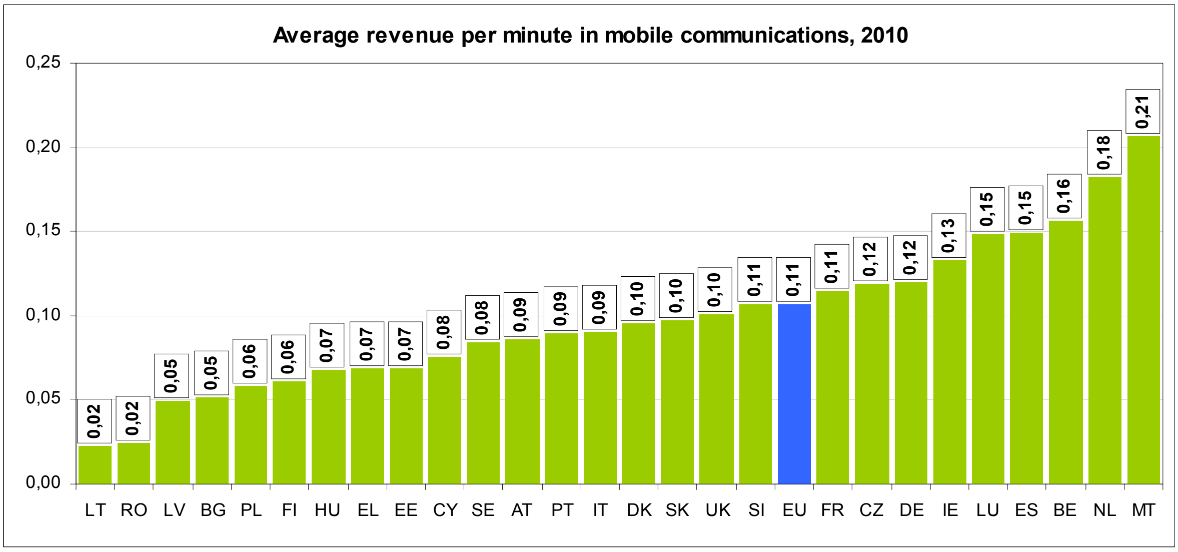
As of October 2011, the penetration rate of mobile telephone services showed a decline, to 110,2% (from 112.6% in October 2010). The majority of subscribers (61%) gave preference to pre-paid subscriptions. In 2011, there were six active MNOs, of which the first two operators had a combined market share of 71%, albeit under constant decrease. Five MNOs were also offering fixed telephony services, two had both UMTS and GSM services, while one operator was only in possession of a UMTS licence. In 2010 the average revenue per user of €64 further decreased from €119 in 2008 and €90 in 2009 is proportionately lower than that of the EU average.



Source: Commission services



Source: Commission services



Source: Commission services

Compared to 2009, in 2010 the average price per minute (calculated as a ratio between the total revenues from minutes of communication and the total number of minutes of retail traffic, roaming included) decreased by 29%, from 0,036 euro/minute to 0,025 euro/minute.

As of January 2012, there were 1.100.000 users of mobile broadband dedicated terminals (only via modems/cards/keys) and 3.020.000 mobile active users with access to dedicated data services via modems/cards and other active 3G users using mobile terminals.

No MVNOs are active in the Romanian market. However, in June 2011 ANCOM has launched a public consultation by publishing a questionnaire to find out the opinion of the Romanian communications market actors with regard to the provision of mobile virtual networks and the conditions related to the presence of MVNOs on the national mobile communications market. As a follow up, in February 2012 ANCOM presented the industry with draft guidelines on the activity of the MVNO in the Romanian electronic communications market, detailing the requirements to be met when entering the market as well as during the activity of those providers willing to offer mobile electronic communications services by means of accessing another operator's network.

Regulatory issues

The second round review of wholesale call termination on individual public telephone networks provided at mobile locations started in 2010. In November 2011 ANCOM notified the wholesale markets on call termination on individual public telephone networks provided at a fixed location and voice call termination on individual mobile networks. In its comments the Commission invited ANCOM to end the transition to the rates based on the pure LRIC model at the end of 2012 and to implement the identified cost-efficient symmetrical rates for the year 2013, therefore to reconsider the slope of its current glide path and aim for a cost-efficient target rate to be achieved already at the beginning of 2013. ANCOM has taken the utmost account of the comments received from the Commission and is considering, after finalising the development of its pure LRIC model by the end of 2012, to implement the identified cost-efficient symmetrical rates already at the beginning of year 2013. The Commission services will closely monitor this commitment.

On 16 January 2012 ANCOM adopted the markets identification by decision 34/2012 followed by the individual SMP decisions on the 24 January 2012. Accordingly the maximum tariffs were submitted to a two-phase cut, by around 40%, in 2012. Thus, starting 1 March 2012, the maximum tariff which the six mobile telephony operators identified as having significant market power – Cosmote, Orange, RCS&RDS, Romtelecom, Telemobil and Vodafone – may charge for the services of call termination on mobile telephone networks is 4.05 eurocents per minute. The second cut will take place as of 1 September 2012, when the maximum tariff to be charged will be 3.07 eurocents/minute.

The other remedies established for both markets, i.e. call termination at a fixed location and call termination at a mobile location remain unchanged. These remedies are: the obligation of transparency, the obligation of allowing access to, and use of, certain specific network elements and of the associated infrastructure, the obligation of non-discrimination and the obligation of price control (including the obligation to maintain the symmetry of the termination rates).

Roaming Regulation

According to ANCOM, all operators which have offered roaming services under the Roaming Regulation have fully implemented the necessary changes in their billing systems in order to comply with all requirements of the Roaming Regulation.

In Q3 2011, the three largest mobile operators offered alternative roaming packages, in addition to the Eurotariff. According to ANCOM, in Q2 2011, in the case of the alternative roaming packages, the average price per billed outgoing minute was lower than the Eurotariff (-7%), while for incoming calls the average price was higher than the Eurotariff (+18%), and also the average price per SMS was higher than the Euro-SMS tariff (+2%). Only one relatively small mobile operator offered the Eurotariff at prices lower than those regulated: 0,20 Euro/minute for outgoing calls (43% cheaper than the Eurotariff), 0,09 Euro/minute for incoming calls (18% cheaper compared to the Eurotariff) and 0,08 Euro/SMS sent (27% cheaper than the Euro-SMS tariff). Concerning data roaming, in Q2 2011, compared to Q2 2010, the average retail price for data roaming in the EU/EEA countries decreased by 21%, from 2.56 Euro/MB to 2.04 Euro/MB.[31]

14.2. Fixed

Market situation

In July 2011, 32 alternative fixed operators used their own infrastructure to provide access to fixed telephony services while 2 operators provide services through full LLU and other 2 have shared access. Romania accounted for one of the highest percentage of subscribers using an alternative provider for direct access, both for national (43%) and international (44%) calls.

According to ANCOM in 2011, there were 12 operators providing CS services, and 2 operators providing CPS. As for VoIP services, 26 operators offered managed services, and 16 operators offered only unmanaged services. The market share by traffic volume of VoIP operators on fixed calls showed an increase from 23% to 25%.

Regulatory issues

As presented above, In November 2011 ANCOM notified the wholesale markets on call termination on individual public telephone networks provided at a fixed location and voice call termination on individual mobile networks. In its comments, the Commission invited ANCOM to end the transition phase at the end of 2012, to reconsider the slope of its current glide path and aim for a cost-efficient target rate to be reached already at the beginning of 2013 in order to comply with the EC Recommendation on termination rates. ANCOM has taken the utmost account of the comments received from the Commission and is considering, after finalising the development of its pure LRIC model by the end of 2012, to implement the identified cost-efficient symmetrical rates already at the beginning of year 2013. The Commission services will closely monitor this commitment.

According to the ANCOM decision in January 2012, the maximum interconnection tariffs in view of call termination charged by the 51 fixed telephony operators identified as having significant market power decreased to 0.82 eurocents/minute as of 1 March 2012. As of 1 July 2012, these will further drop to 0.67 eurocents/minute. The interconnection tariffs charged by the fixed telephony operators will no longer be differentiated by peak/off-peak.

14.3. Broadcasting

Market situation

As of July 2011, there were 3.46 million cable subscribers (46.7% penetration rate). At the same time there were 2.2 million subscribers to DTH satellite networks and 40000 to IPTV services. Although the number of IPTV subscribers has shown rapid growth, these services held only a 0.5% share within the total number of subscribers to audio-visual programme retransmission services.

[31] Source: Autoritatea Nationala pentru Administrare si Reglementare in Comunicatii (ANCOM)

Romania postponed the Analogue TV Switch Off date to 2015, amending the Strategy on the digital switchover adopted in 2009, on grounds relating to additional time required to implement this project during the economic downturn, without consulting ANCOM.[32]

Must Carry

It was reported that the must carry regime has been changed because it is becoming burdensome to all carriers, except those exclusively using radio spectrum, reaching in some cases 40% of the total programs carried. The Commission services are looking into this matter. In addition, must carry rules would gain additional importance in the context of the digital switchover process, as certain channels would have to be carried by the multiplexes available.

15. Spectrum Management

The Strategy on digital switchover provides for the analogue switch in 2015. On 28 December 2011, Autoritatea Nationalapentru Administrare si Reglementare in Comunicatii (ANCOM) decided to extend the expiring licence with one year and organise an auction based on a competitive selection procedure in 2012 on the 900 and 1800 MHz bands. . A first set of licences will cover the period of 1 January 2013 – 5 April 2014, aligning them with the expiry dates of other existing licences. The second set of licences will be valid as of 6 April 2014. For the licences which were extended, the two operators paid a 6.4 million euro licence tax, a value that is proportionate with the amounts paid for obtaining the licences in 1996, computed by ANCOM by indexing the historical licences values.

Digital Swichover

The national strategies on the development of broadband and the digital switchover process adopted in 2009 have not been followed up with operational plans. The Strategy on digital switchover was amended by the Government to postpone the analogue switch off deadline till 2015. ANCOM expressed its readiness to start the auction for awarding the licences for digital television multiplexes, i.e. the first stage of the digital switchover process which is to begin however upon the adoption of the new strategy document by the Ministry of Communications and Information Society.

In this context it shall be mentioned that Article 6.4 of the Radio Spectrum Policy Programme[1] (RSPP), requires Member States to carry out the authorization process by 1 January 2013 in order to allow the use of the 800 MHz band for electronic communications services. The Commission shall follow up on this issue, as it appears that Romania might not comply with the deadline set in the RSPP.

Spectrum auctions and refarming

In July 2011 ANCOM launched a public consultation[33] on the prolongation of licences in the 900 MHz and 1800 MHz bands which is currently accommodating 3 mobile operators. This came in the context of the expiry on 1 January 2012 of the licences of 2 mobile operators in the 900 and 1800 MHz bands.

---

[32] Government Decision No 833/2010.

[33] Consultare privind extinderea valabilităţii drepturilor de utilizare a frecvenţelor în benzile 890-915 MHz/935-960 MHz şi 1722,7 MHz-1747,5 MHz/1817,7-1842,5 MHz, 14 iulie 2011

After further consultation with the stakeholders 3 days before the expiry of the licences, on 28 December 2011, ANCOM decided to extend the expiring licence with one year and organise an auction based on a competitive selection procedure in 2012 on the 900 and 1800 MHz bands. . A first set of licences will cover the period of 1 January 2013 – 5 April 2014, aligning them with the expiry dates of other existing licences. The second set of licences will be valid as of 6 April 2014. For the licences which were extended, the two operators paid a 6.4 million euro licence tax, a value that is proportionate with the amounts paid for obtaining the licences in 1996, computed by ANCOM by indexing the historical licences values.

In the context of the auctions proposed for 2012, in January 2012 ANCOM and the Romanian Ministry of National Defence (MApN), as initiators, have submitted to public consultation the draft Emergency Ordinance on the release of the 830-862 MHz, 1747.5-1785 MHz, 1842.5-1880 MHz and 2500-2690 MHz frequency bands. These bands, which are now partially used by MApN, are to be auctioned by ANCOM in view of the provision of broadband electronic communications services. As a result, in March 2012 ANCOM launched a consultation on the auction procedure in the 800, 900, 1800, 2600 MHz bands.

In July 2011 ANCOM launched a consultation on the Strategy Paper on the national implementation and development of BWA systems in the 3400 – 3800 MHz frequency band for 2011 – 2020, which establishes the principles, conditions, procedure of granting the rights to use the spectrum in this band for broadband wireless services, as well as the method for its refarming. ANCOM decided that further analyses and debates are required before taking a decision on the technical matters under the Strategy Paper which are related to the object of a CEPT/ECC decision adopted in December.

MSS licencing

Regarding Mobile Satellite Systems (MSS), the general rules on enforcement of conditions and regulations laid down by the *Government Emergency ordinance n°111/2011* apply. The system is based on individual rights and no authorisation was granted to the selected operators to date as no request was received by ANCOM..

16. CONSUMER INTEREST

16.1. 116 – Harmonised numbers for services of social value

Availability of 116 harmonised numbers has been good in Romania, while awareness levels remained low at 13%.

The National Numbering Plan reserves the national numbering range beginning with '116' for harmonised numbers for harmonised services of social value. All the existing **five** reserved numbers were opened for assignment. At present, the following two harmonised services of social value are operational: 116000 – missing children hotline and 116111 – child helplines. Since no operator has submitted assignment requests for 116123, 116006, 116117, a simplified procedure is in place. According to the provisions of the Decision no.321/2008 on the allocation and the use of national short numbers for European harmonised services, ANCOM will apply "first-in, first-served" principle in order to grant licences for the use of the remaining numbers. Recently, another national number (116123) has been allocated for a harmonised service of social value – emotional support helpline.

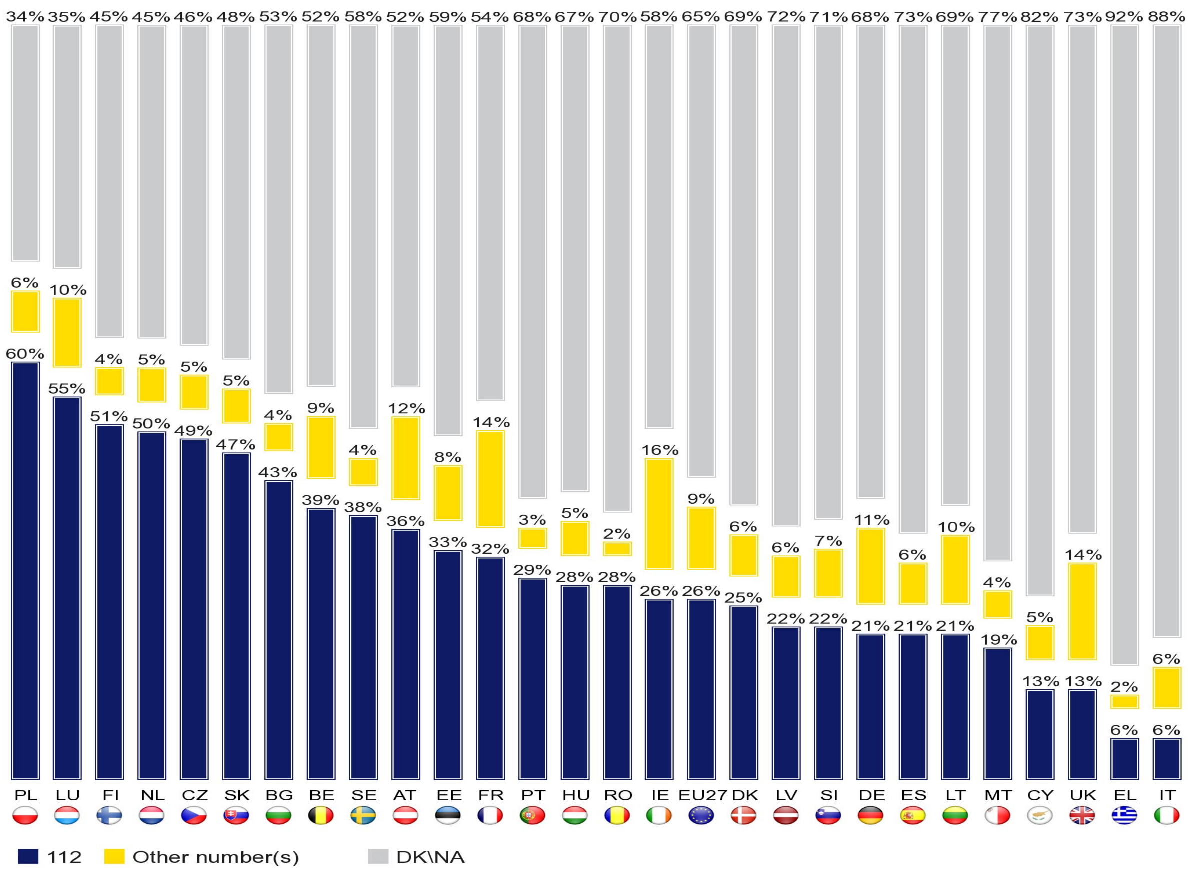
16.2. 112 – European Emergency Number

112 is the sole Emergency Number in Romania and it is reported to function well.

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

Article 26 of the revised Universal Service Directive is transposed in article 70 of the Government Emergency Ordinance 111/2011. According to the latest Eurobarometer report, knowledge of the national 112 number is amongst the highest in Europe, however only 28% of Romanians know this the number is functional EU-wide. The relevant legislation ensures national roaming for 112 calls originated in any network. The caller location method is "Push" for both fixed and mobile calls. According to the legislation for the 112 system (G.O.

34/2008), each PSAP should be able to receive emergency calls in the languages of the national minorities and at least in one international language. Currently 112 SMS and 112 Fax for people with disabilities is under implementation.

16.3. Net neutrality and quality of service

In June 2011 Autoritatea Nationalapentru Administrare si Reglementare in Comunicatii (ANCOM) established the quality indicators for the provision of the Internet access service and their publication.

The Romanian legislation does not contain provisions preventing the providers to block certain applications. Nevertheless, at the regulatory level, there are several developments that are worth mentioning. The new Romanian legal framework has transposed the provisions of art. 20 from the revised Universal Service Directive regarding inclusion in the contracts of certain net neutrality related information and the provisions of art. 21 from the same Directive, regarding providers' obligation to publish a series of net neutrality related information.

Concerning the transparency obligation on net neutrality aspects, besides the transposition of art. 21 from the revised Universal Service Directive, we can also mention ANCOM's Decision no. 77/2009 on the obligations of the providers of publicly available electronic communications services to inform the end-users. Among other obligations that have been imposed on the providers, the Decision stipulates that the providers of internet access services are recommended to make publicly available the upload/download capacity during peak hours, as well as the maximum upload/download capacity.

In June 2011 ANCOM established[34] the quality indicators for the provision of the Internet access service and their publication. ANCOM's Decision does not impose minimum quality of service requirements, but according to its provisions, a set of transparency obligations regarding the technical and administrative quality parameters are incumbent on the providers of internet access services, e.g. to publish and include in the contracts a certain number of technical and administrative quality indicators. It also imposes the obligation for providers to publish comparable, adequate and up-to-date information on the quality of the internet access services they provide. Furthermore, ANCOM shall create, manage and make available to the public an interactive application on its website to measure technical quality parameters, such as data transmission speed, delay, jitter, packet loss rate. The interactive application will be available to the public at the end of 2012.

In practice, it seems that there are still two mobile operators who use a form of blocking VoIP services or certain type of traffic: one of them for prepaid cards, when VoIP traffic is not allowed and the other one where certain type of traffic, like for example, peer to peer traffic, are not allowed for the subscribers who use IPhone.

16.4. Consumer complaints, tariff transparency

Interactive Tariff Guide through an online "price calculator" is foreseen to be implemented.

[34] Decision 1201

In 2011 ANCOM has received approximately 940 complaints from the end users, mainly concerning: terms of contracts, lack of compliance with the terms of contracts (33%), network/service failure or the quality of service (16%), billing issues (15%), portability issues (15%).

ANCOM signed in 2011 a contract financed from structural funds to up an interactive Tariff Guide through an online "price calculator" that will perform, based on the user's options, comparative analyses of the standard tariff plans on the market with regard to fixed telephony, mobile telephony, internet access and bundles.

16.5. Number portability

Rules for 1 day portability is still to be implemented.

About 182000 numbers had been ported between October 2010 and October 2011. The Decision reducing the maximum term for portability from 10 to 3 working days will enter into force in the second half of 2012. These rulese allow for a number to be ported in one working day from the time the request is accepted by both the donor operator and the recipient operator.

16.6. Universal Service

The NRA adopted the new bylaws on the Implementation of Universal Service in the Field of Electronic Communications.

As regards the third policy paper adopted in 2009 relating to the implementation of Universal Service in Romania, the telecoms regulator (ANCOM) has been working to adopt the bylaws to reflect the new approach. The ANCOM Decision was adopted and published on 17th of January 2011. The NRA's President's Decision no. 7/2011 on Implementation of Universal Service in the Field of Electronic Communications repealing the former Decision no. 1074/2004 sets out the scope of the universal service obligations in Romania. Such obligations are: ensuring access and connection, at a fixed location, to the public telephone networks and of access, at a fixed location, to the publicly available telephone services, at the household level; *homezone* access services provided over mobile networks are seen as substitute solutions to the access services provided at a fixed location over fixed public networks; ensuring telephony services at a fixed location, including faxes, and functional internet access (i.e. "internet access, at a fixed location, which allows a best-effort download speed of at least 144kbps"). In addition ANCOM may impose to USPs measures taken in favour of disabled users. In this regard a market research is planned in 2012 in order to assess the needs of disabled users and based on its findings, ANCOM may extend the above mentioned obligations to all undertakings.

16.7. E-privacy

The new regulatory framework on e-privacy has been recently transposed into national law by a Government Emergency Ordinance approved on the 3rd of April 2012.

The compliance with these new provisions will be monitored by the Romanian Data Protection Authority.

The protection of consumers with regard to cookies, spam and in case of data protection breach has been reinforced, ensuring thus the level of protection specified by the revised 2002/58/EC Directive.

EUROPEAN COMMISSION
Information Society and Media Directorate-General

Electronic Communications Policy
Implementation of Regulatory Framework

18 June 2012

SWEDEN

2011

Telecommunication Market and Regulatory Developments

17.

18. SWEDEN

19. MAIN MARKET & REGULATORY DEVELOPMENTS: BEST PRACTICES AND CHALLENGES

Development of the sector

In 2010, the **investments** in the Swedish electronic communication sector amounted to €736 million registering a significant decrease and the lowest investments on revenues ratio in the EU (9.1%). Overall **revenues** in the electronic communications sector in Sweden increased to €8.12 billion, with a 2.1% growth, following the upward trend in the mobile sector with a 6.5% increase that over compensated decreasing fix revenues.

Wireless services are predominant in Sweden with mobile broadband subscriptions taking over fixed broadband subscriptions. The mobile data services are registering a significant growth and the 4G network is widespread in Sweden that was the first country in the world to have launched the new long term evolution network (LTE). 4G coverage is now provided both by the incumbent (Telia Sonera) and its major competitors (Tele2, Telenor, Hi3G), covering not only major cities but also smaller towns and tourist sites.

The incumbent's market share (TeliaSonera) in the **fixed broadband market** remained stable at 37.4%, and alternative operators (e.g. ComHem, Telenor, Tele 2, and others) with their market share of 62.6% are standing above the EU average of 57%. The percentage of DSL lines owned both by the incumbent and by new entrants is not registering any significant changes, with 61.1% DSL lines owned by the incumbent and 38.9% lines owned by alternative operators. On the other hand, TeliaSonera is strengthening its competitive position due to an increasing market share in the growing **mobile broadband market.**

Sweden has a high fibre to the home (FTTH) penetration compared to other EU countries, also due to widely developed urban open access networks, based on dark fibre, that are characterising the Swedish broadband development model. The incumbent is therefore competing at infrastructure level, mainly with the municipality networks, while the competition at service level is mainly based on the open access model.

TeliaSonera is maintaining its leading position in the **mobile and fix market** and is acquiring new IPTV clients in a **broadcasting market** still dominated by cable TV. The fix market share decreased only marginally while the incumbent's mobile retail arm remained constant. The sector is facing an increasing pressure on traditional business models for infrastructure providers, which have to compete with service providers operating in the IP environment, especially with the Voice over IP (VoIP) services that registered a significant increase. Mobile Termination Rates and Fixed Termination Rates are creating uncertainty in the market following retrocative claims linked to Court decisions.

The time taken to port fixed and mobile numbers was on average three days, nevertheless in 2011 procedures for contract termination, sim cards locks and switching costs might have acted as a disincentive for changing service provides.

Progress in broadband deployment and take-up

The market is characterised by a very strong mobile broadband take-up and a widespread 4G network. Data volumes in mobile networks are increasing sharply.

In October 2011 the Swedish Ministry of Enterprise, Energy and Communication launched the Digital agenda for Sweden (DAS) incorporating the Swedish Broadband Strategy, which aims at ensuring that 90 percent of all Swedish households and business have access to 100 MBps by 2020. Regional Digital Agendas have also emerged on a voluntary basis. The market, institutonal and regulatory stakeholders are joined in a Broadband Forum identifying obstacles and contributing to the achievement of the targets laid down in the Government's Broadband Strategy.

At the end of 2011, Sweden was close to achieving the DAE target aiming at securing a basic broadband connection for all EU household by 2013. Broadband coverage in rural areas is ensured also via mobile solutions.

Progress in the deployment of very high speed connections in Sweden is encouraging if compared to other EU countries: the penetration rate of broadband with a speed of more then 100 MBps is 5.3%, which is the highest in the EU. According to the NRA data more then 40 per cent of all households and businesses in Sweden have already access to broadband at a minimum speed of 100 MBps.

Possible initiatives are being evaluated on how to make better use of infrastructure sharing and co-deployment measures.

Independence and effectiveness of the NRA

Regulatory uncertainty continued to affect market players, due to the fact that several PTS (Post-och telestyrelsen) decisions have been appealed. Operators are pleading for improved regulatory predictability and quality of decisions to further reduce the number of NRA decisions overturned by the Courts. The Swedish NRA, is proceeding effectively in its spectrum liberalisation process and has allocated additional strategic spectrum to market players through competitive selection procedures.

Implementation of the framework

Legislation aimed at transposing the reformed EC electronic communications regulatory package entered into force on 1 July 2011. At the end of 2011 there was no pending infringement in Sweden.

Spectrum management

The NRA has allocated additional strategic spectrum in the 800 MHz and 1800 MHz band to market players, thereby supporting additional roll-out of mobile networks. The winning bidders of the 800 Mhz auctioning committed themselves to fulfil a specific requirement for the deployment of broadband in rural areas lacking broadband connection.

Citizens and consumer protection

Availability of 116 harmonised numbers has improved due to the assignment of the emotional support hotline.

112 is the sole emergency number in Sweden and the level of awareness of 112 as the European Emergency Number is higher then the EU average.

The NRA has been given new regulatory powers to address net neutrality issues and operators are starting to offer differentiated packages based on the inclusion of VoIP services.

The Consumer Agency and the Telecom Advisors are working on agreements tackling the issues of clearer and fairer contract terms, SIM unlock and contract duration and provision of information to consumers.

Sweden has adopted measures to ensure access to a broadband connection of at least 1 MBps to all.

No major issues on e-Privacy were reported.

20. National Regulatory Authorities (NRA)

Regulatory uncertainty continued to affect market players, due to the fact that several PTS decisions have been appealed, and that related Court proceeding are still lenghtly and unpredictable, even if there has been an attempt to shorten the overall duration of the appeal process, by designating the Administrative Court of Appeal (Kammarratten) as the Court of last instance, and by inviting special economic experts to participate in the settlement of cases. The NRA is proceeding effectively in its spectrum liberalisation process and has allocated additional strategic spectrum to market players through competitive selection procedures.

The Swedish NRA, PTS (Post-och telestyrelsen) has 260 employees and has recently recruited additional staff to deal with competition regulation. In total PTS receives SEK 280 million from fees and SEK 68 million from state funding.

PTS has dealt with 6 dispute resolution cases, with a length of procedure varying from 3 to 5 months. In one case the incumbent appealed against PTS decision concerning the level for fixed interconnection charges.

Since 2009, following an amendment of the Electronic Communication Act, the right of appeal was extended by ensuring that any decision taken by the NRA can be appealed by all affected market players. Several PTS decisions have been overruled by the Courts during the past few years, which has lead to continuous concern amongst operators, and to the NRA attempting to remove regulatory uncertainty. Three PTS orders from 2008 and 2009 aiming at lowering fixed and mobile termination rates were quashed in June 2011. Two appealed SMP decisions from May 2010, and two from November 2010, have not yet been settled in the Administrative Court of Stockholm. Most likely PTS will have to issue new decisions before knowing the outcome in the appeals processes regarding earlier decisions, leading to further regulatory uncertainty.

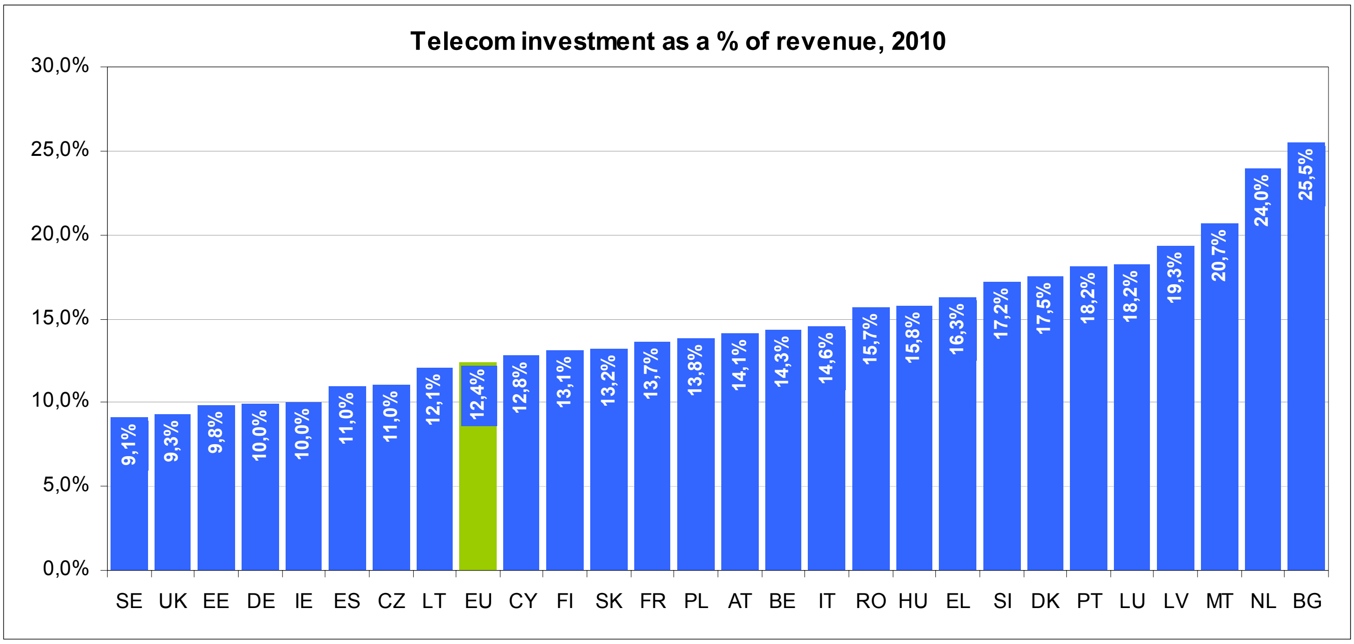
Operators are pleading for well motivated NRA decisions that would not be overturned by Court decisions. They have expressed concern regarding the fact that they might have to face rectroactive changes of price conditions, following a Court decision.

In October 2011, the Administrative Court of Appeal upheld an SMP decision concerning the imposition of an obligation to offer compensation for failure to meet contracted service levels. During 2011 PTS supervised access and price obligations related to the remedies imposed on the incumbent following the 2010 market analysis on the wholesale market for (physical) network infrastructure access (including LLU and shared access), and the wholesale market for broadband access. In the Swedish system prices are defined during the supervision procedure phase. Following a PTS decision on remedies, a LRIC cost model and price method is notified, and is then applied during the supervision procedure phase, when PTS issues orders or injunctions defining the price. Operators are concerned about the complexity of the LRIC model, since many Court cases are linked to the application of this model, and this allegedly contributes to the increased regulatory uncertainty.

During 2011 PTS also proposed a new SMP decision on leased lines that was then withdrawn in 2011 and is planned to be notified in 2012. Public consultations have been launched in relation to the revision of the analyses of the wholesale market for (physical) network infrastructure access (including LLU and shared access), and the wholesale market for broadband access which should be finalised in 2013.

21. REVENUES AND INVESTMENTS

In 2010, the **investments** in the Swedish electronic communication sector amounted to €736 million registering a significant decrease and the lowest investment over revenue ratio in the EU (9.1%). Overall **revenues** in the electronic communications sector in Sweden increased to €8.12 billion, with a 2.1% growth, following the upward trend in the mobile sector with a 6.5% increase that over compensated decreasing fix revenues.



Source : Commission services

In 2010, investment (totalling €736 million) in the electronic communications sector in Sweden decreased significantly by 22.8%. The negative trend was observed in both the fixed market, totalling €375 million investments, and the mobile market, with €188 million investments.

The total turnover of the Swedish electronic communication sector amounted to € 8.12 billion, an increase by 2.1 % in comparison with 2009. Fixed revenues decreased by 3%, while on the other hand mobile revenues increased by 6.5%, confirming the importance of mobile revenues in the Swedish electronic communication market.

The investment over revenue ratio was the lowest in the EU with 9.1%, compared to the EU average of 12.4%.

Operators expressed their concerns in relation to a legislative proposal (Bill on expropriation), on the introduction of a charge giving landowners increased compensation. According to the draft legislation landowners would be entitled to a share of profit from investments and operators are concerned about the significant cost that this would represent for the sector, and its severe effects on investments.

22. BROADBAND

The market is characterised by a very strong mobile broadband take-up and a widespread 4G network. Data volumes in mobile networks are increasing sharply and mobile broadband subscriptions have surpassed the number of fixed subscriptions.

Sweden has a high fibre to the home (FTTH) penetration compared to other EU countries. Urban open access networks, based on dark fibre, are characterising the Swedish broadband development model. The incumbent is therefore competing at infrastructure level, mainly with the municipality networks, while the competition at service level is mainly based on the open access model.

In October 2011 the Swedish Ministry of Enterprise, Energy and Communication launched the Digital agenda for Sweden (DAS) incorporating the Swedish Broadband Strategy, which aims at ensuring that 90 percent of all Swedish households and business have access to 100 MBps by 2020. Regional Digital Agendas have also emerged on a voluntary basis. The market, institutonal and regulatory stakeholders are joined in a Broadband Forum identifying obstacles and contributing to the achievement of the targets laid down in the Government's Broadband Strategy.

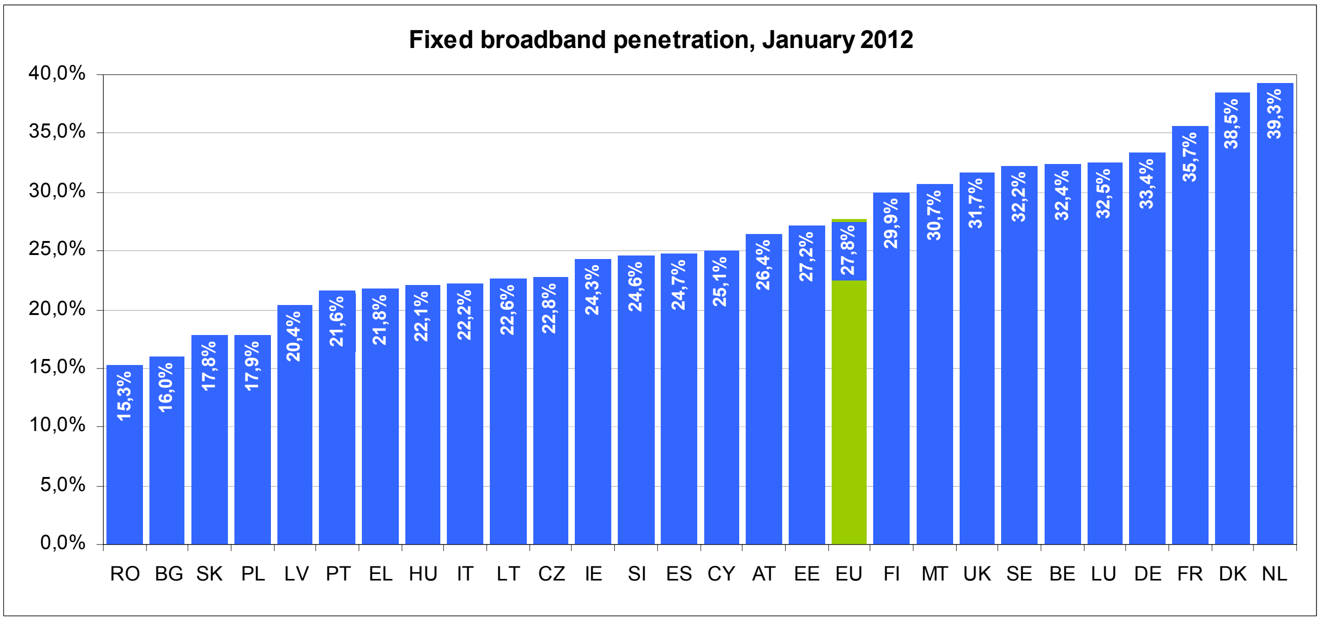
At the end of 2011, Sweden was close to achieving the DAE target aiming at securing a basic broadband connection for all EU household by 2013. Progress in the deployment of very high speed connections in Sweden is encouraging if compared to other EU countries and the penetration rate of broadband with a speed of more then 100 MBps is 5.3%, which is the highest in the EU. According to the NRA data more then 40 per cent of all households and businesses in Sweden have already access to broadband at a minimum speed of 100 MBps.

Possible initiatives are being evaluated on how to make better use of infrastructure sharing and co-deployment measures.

22.1. Market situation and regulatory development

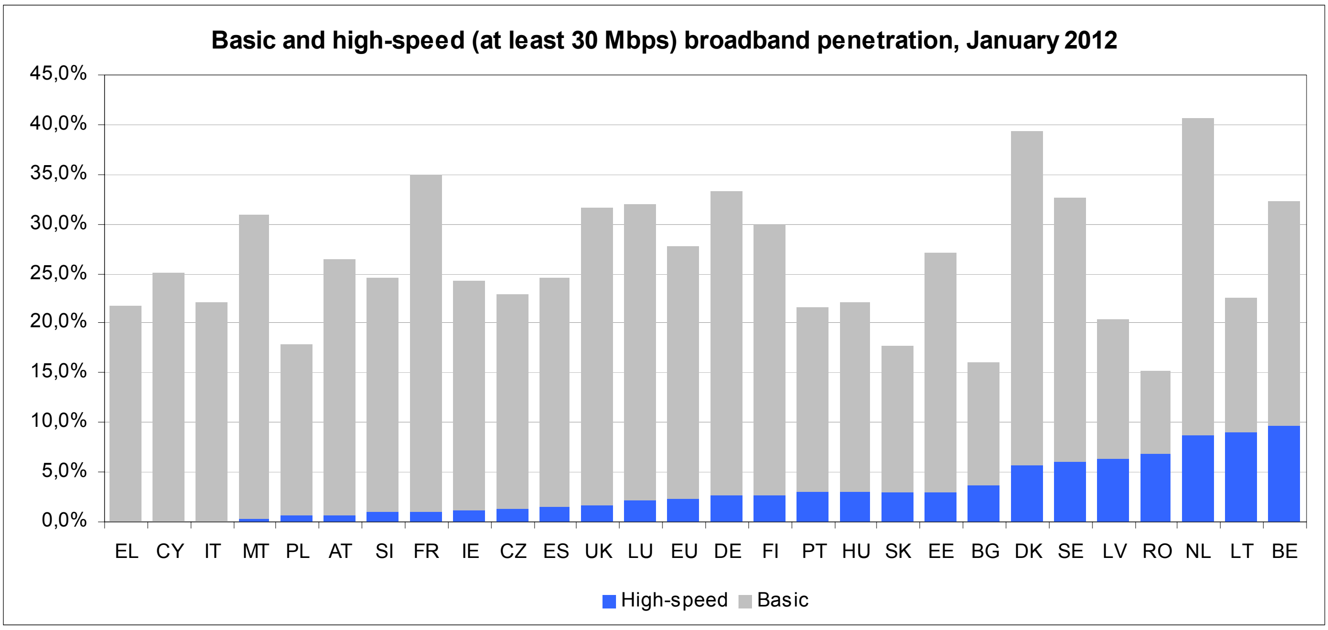
According to NRA data[35], the percentage of population with a broadband availability of at at least 1 MBps is 98.06% for xDSL, 39.54% for fiber and FiberLAN (FTTH/B), 31.55% for cable-TV in the wired segment, 99.64% for HSPA,99.87% with CDMA and 44,69% with LTE in the wireless segment.

Fixed broadband penetration in Sweden, the seventh highest in the EU, increased slightly to 32.6 % in January 2012, and stood above the EU average of 27.7%. However the market is not yet reaching full penetration. The speed of the overall growth, which has regularly been slowing down during the past 5 years, registered in January 2012 an increase with 402 additional fixed broadband lines per day compared to 50 per day in July 2010. It has to be noted however that according to the Fibre-to-the-Home Council figures Sweden is the second European economy with highest fibre to the home/building (FTTH/B) penetration in the EU (approximately 14%[36]).



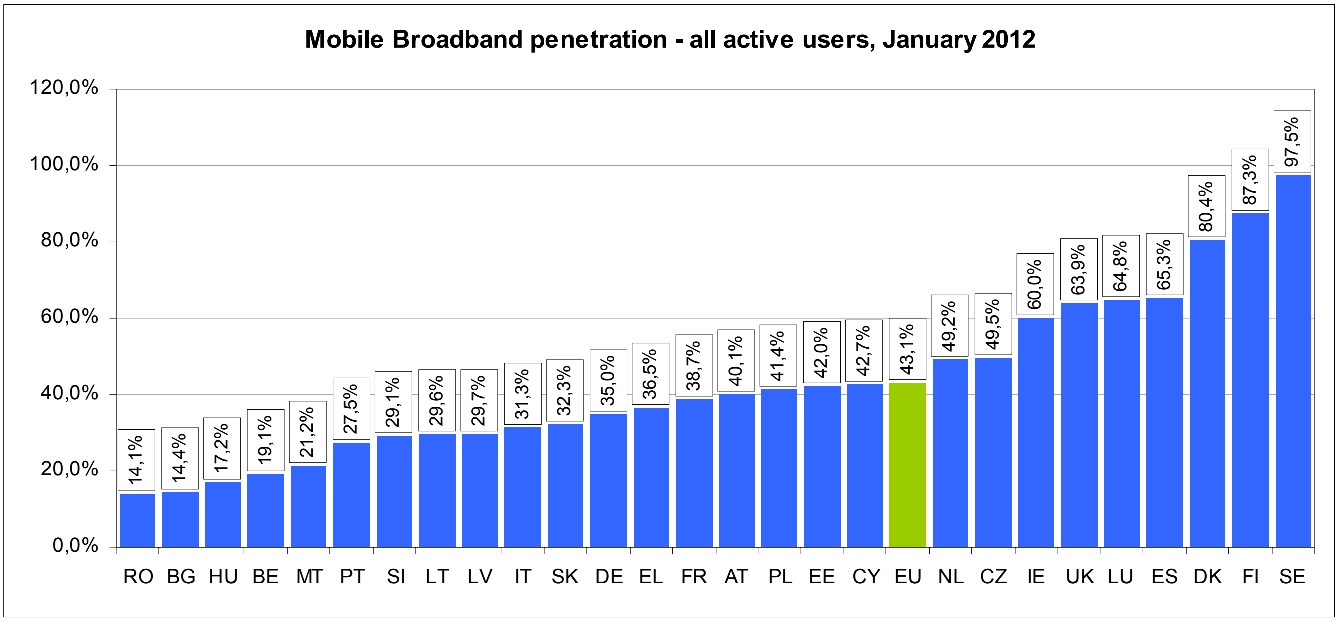
Source: Communications Committee

[35] source: PTS-ER-2012:11, "PTS Bredbandskartläggning 2011" 2012-03-14
[36] Fibre to the home council, June 2011.



Source: Communications Committee

Mobile broadband is very popular in Sweden, and remained the fastest growing segment in the broadband market. The mobile broadband penetration of 97.5% (January 2012) is the highest in the EU, and far above the EU average of 43.1%. Mobile broadband connections, measured as dedicated data services/cards/modems/keys, grew significantly to 20.5% in January 2012, becoming the second highest in the EU, and significantly exceeding the EU average of 8.1%. In this market the incumbent is strengthening its position with an increasing market share in the growing mobile broadband market according to NRA data.



Source: Communications Committee

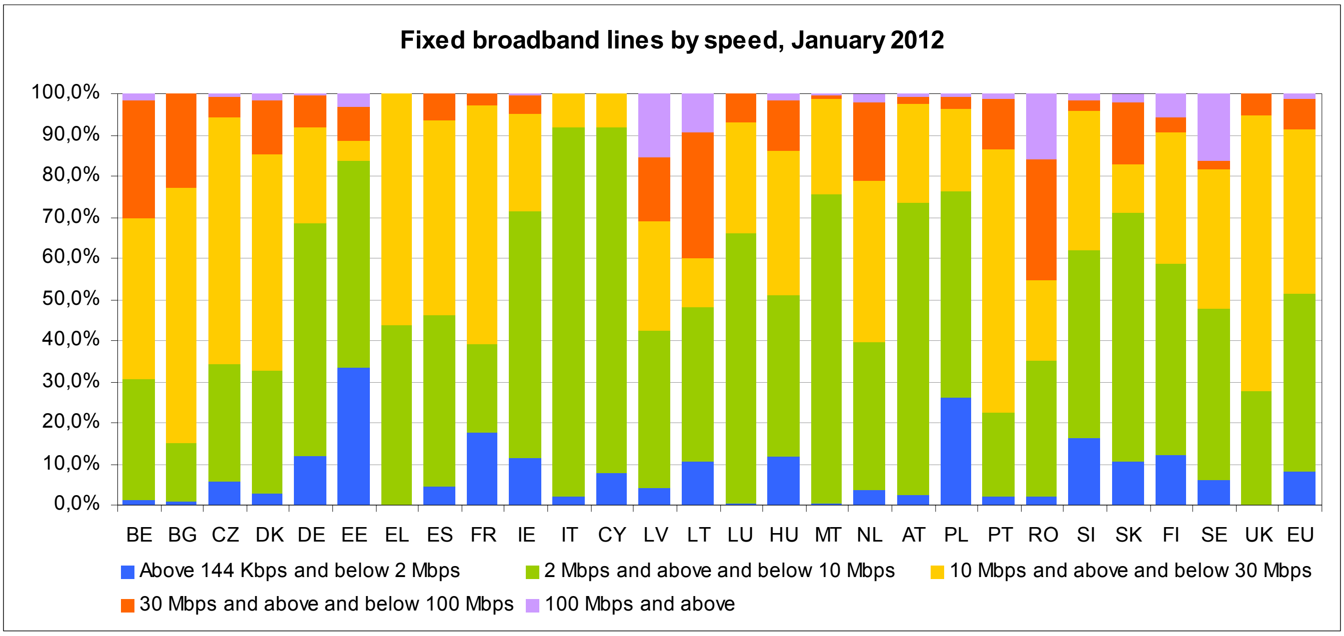
While DSL, with a market share of 51% in January 2012, still remains the leading technology in Sweden, there is a strong growth of alternative access platforms. As a result of its stable growth, fibre to the home (FTTH), with its 24.4% fixed broadband market share in July 2011, has finally replaced cable (20%) as the most important alternative fixed platform, confirming the trend registered in previous years. Cable operators however expressed their concern about unfair competition from urban networks in publicly owned apartment buildings.

The incumbent's market share in the fixed broadband market remained stable at 37.4% in January 2012, and alternative operators with their market share of 62.6% are standing above the EU average of 57%. The percentage of DSL lines owned both by the incumbent and by new entrants is not registering any significant changes, with 61.1% DSL lines owned by the incumbent and 38.9% lines owned by alternative operators.

While the copper network is mainly owned by the incumbent, urban networks characterize the Swedish fibre development model, since they represent in cumulative terms the second main owner of passive fibre infrastructure in the country immediately after the fibre networks owned by the incumbent. Urban networks, which exist in more than 170 out of 290 Swedish municipalities, are mainly owned by the municipalities (more than 145). They are most often based on the open access model with an equal open access, and competition on the service level, where the owner of the infrastructure offers dark fibre on the wholesale market. The communication operator model is of growing importance in the market, where electronic communications operators are performing a middle-man function, between owners of dark fibre, mainly represented by the city networks, and service providers that are offering services to the consumer.

The availability of fixed broadband lines offering speeds of more than 10 MBps has grown and accounted for 52.4% of all lines in January 2012, in comparison with 47.6% in January 2011. The share of fixed broadband lines offering speeds between 2 and 10 MBps slightly decreased to 41.3%. The share of low-speed lines below 2MBps also decreased from 9.1% in January 2011 to 6.3% in January 2012. Sweden is performing better then other European countries in very high speed lines. According to January 2012 data 34.1% of broadband lines are between 10 Mbps and 30 Mbps, while 2% of broadband lines are between 30 Mbps and 100 Mbps and 16.4% of broadband lines have a speed of more then 100 Mbps, which is the highest score in the EU, and far above the EU average of 1.3%.

According to the NRA data, the number of subscriptions for fixed broadband with higher transmission capacity is continuously increasing, including speeds of at least 100 MBps. Sweden appears to be performing relatively well in very high speeds above 100 MBps, with a penetration rate of 5.3% which is the highest in the EU and far above the EU average of 0.4%.According to the NRA datacirca 23% of the approximately 2.7 million households which, according to the PTS Broadband Survey in October 2011 had the possibility to connecting to a transmission speed of at least 100 MBps, also had a subscription for broadband with that speed.



Source: Communications Committe

The monthly average total cost for a fully unbundled local loop was stable at €13.99 in October 2011, above the EU average of €9.70. The monthly average total cost for shared access was stable at €4.79 in October 2011, above the EU average of €2.90. The LLU connection cost per fully unbundled local loop is high, reaching €177.04 in October 2011, compared to the EU average of €38.99 in October 2010 -. The incumbent proposed a new enhanced wholesale "IP stream" platform, which is more expensive, having more functionalities and represents an additional migration cost for operators. Whereas the incumbent's retail nationwide fibre-based solutions are provided to both large business customers and to real estate owners, this appears not to be the case to the same extent at wholesale level, where the wholesale provision of fibre by the incumbent, in practice, appears limited.

The uptake of bundled packages continues, and in July 2011 15.5% of the Swedish population availed themselves of such offers (of which 9.2 % are double play and 6.3% are triple play) with a significant overall increase if compared to 11.3% in July 2010.

In April 2011 the NRA notified to the Commission a revised LRIC cost model affecting fixed call origination and termination, as well as fixed access services (both unbundling and wholesale broadband access) with a new methodology to be applied for the calculation of price control remedies on the SMP operator. For unbundling in particular, the NRA proposed a novel approach whereby fibre and wireless were identified as Modern Equivalent Assets (MEA) of copper. The NRA differentiated five geotypes according to differences in population density. For copper, the NRA set a single national price for fully unbundled copper access, which is the average of the costs of deploying fibre (replacement cost) in the most densely populated geotypes. It considered wireless as the MEA for copper in low density areas. For fibre, it proposed access prices differentiated according to each geotype, with some averaging in municipalities which represent more than one geotype. The Commission questioned the fact that the copper price is a national average and fibre is not, as this may lead to distortion and affect investments; further questioned the NRA's reasoning for the different treatment of fibre connections to detached houses; and finally invited the NRA to implement a pure BULRIC model for fixed termination on 1 January 2013 instead of 1 January 2014 as proposed.

Remedies established by PTS in 2010 for the regulation of the wholesale market for (physical) network infrastructure access (including LLU and shared access), and the wholesale market for broadband access, have been applied during 2011, based on the revised LRIC model. Considering the wide extension of the fibre network in Sweden, fibre and copper are considered substitutes for the regulator, and therefore fibre access is regulated in parallel with copper access. Cable and mobile broadband are not included in the relevant market, even if considering the increased take-up of the LTE technology in Sweden. The NRA will closely follow this development and consider possible implications on the market. The regulation allows the SMP operator to charge for fibre based on level of usage.

Concerns were expressed by urban networks in relation to the effect of the regulation, since they are claiming that following the reduction of prices by the incumbent due to the application of the new LRIC model, they would need to adjust their prices downwards to become competitive on the market. They consider this could be unsustainable for some of them, and might lead to the acquisition of their networks by the incumbent and to a re-monopolization of the access network market.

Duct access is not regulated, however the incumbent has to roll out fibre on request if it has available ducts. Legal aspects might be limiting the possibility of leasing ducts without the approval of the land owner. A public consultation began in December 2011 on the wholesale terminating segment of leased lines, which might lead to additional fibre regulation; PTS is in the process of discussing whether the current system "Ledningskollen" designed to prevent excavation-related damage to cables can be developed so as to locate ducts, and coordinate ducting projects, and if so, what initiatives are appropriate in that regard. PTS has also been asked by the government to look at possible business models with broadband ducting, and ways of facilitating increased co-location of ducts. PTS, published a report in December 2011[37].

4.2 National Plans, private & public investments

In October 2011 the Swedish Ministry of Enterprise, Energy and Communication launched the Digital agenda for Sweden (DAS) which aims at defining how to best use Information Technology in order to create employment, development, democratic participation and growth. It also incorporates the Swedish Broadband Strategy, which aims at ensuring that 90 percent of all Swedish households and business have access to 100 MBps by 2020 with an intermediate target, to be achieved in 2015, of 40 per cent. This intermediate target has already been met. Regional Digital Agendas have also emerged on a voluntary basis.

Some additional resources were earmarked for broadband infrastructure expansion, extending support for ducts with SEK 120 million over the period 2012–2014, support for broadband expansion in the rural development programme for SEK 300 million, and an additional SEK 75 million over the period 2012-2014 for co-funding of broadband measures. Sweden is also

[37] PTS-ER-2011:26 Report: Business opportunities with broadband ducting - Benefits, models and suggestions for promotions

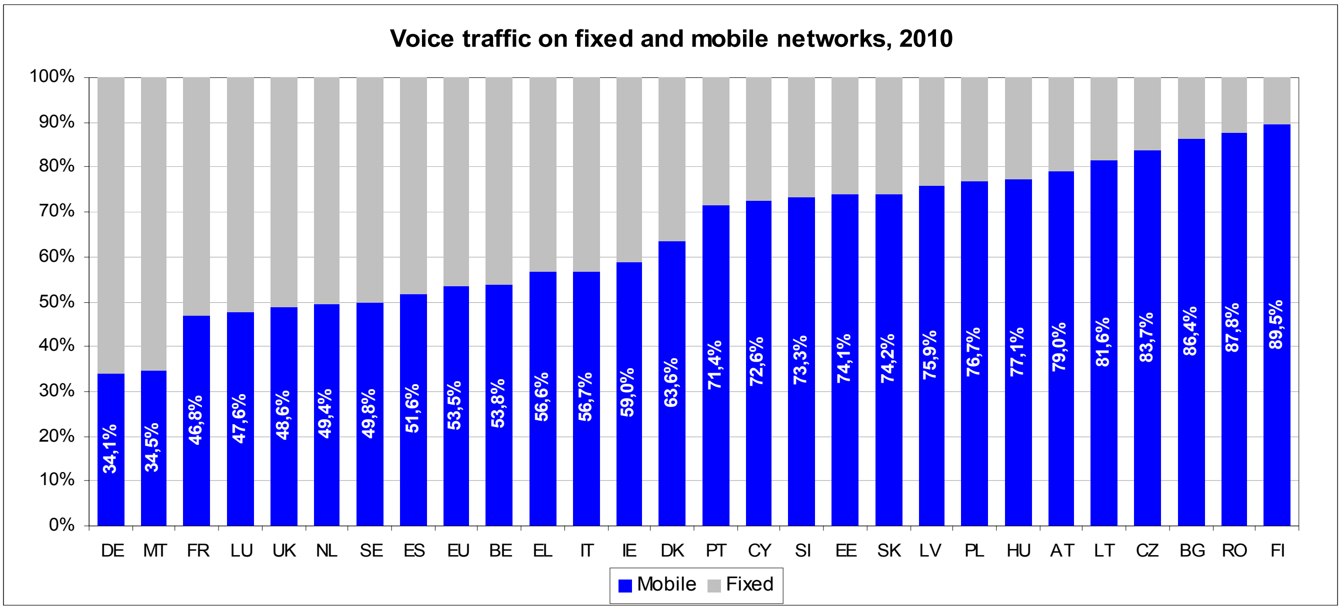
implementing the support from the EU's Rural Area Programme devoting some resources to broadband infrastructure.

In the Digital Agenda Strategy the Government proposed to extend the remit of the Broadband Forum, which was established in 2010, as a meeting place for market, institutonal and regulatory stakeholders, and which is chaired by the Swedish Minister for Information Technology and Energy. The Forum is considered by all players as a very positive and fruitful initiative, which contributes to an increased dialogue; promotes the deployment of broadband throughout Sweden; identifies obstacles and contributes to the achievement of the targets laid down in the Government's Broadband Strategy.

23. Voice and other eCommunication services

Sweden was the first country in the world to have launched the new long term evolution network (LTE), and has now a wide 4G coverage provided both by the incumbent and its major competitors, covering not only major cities but also smaller towns and tourist sites. At least one operator estimates that 99% of the population will be reached in 2012.

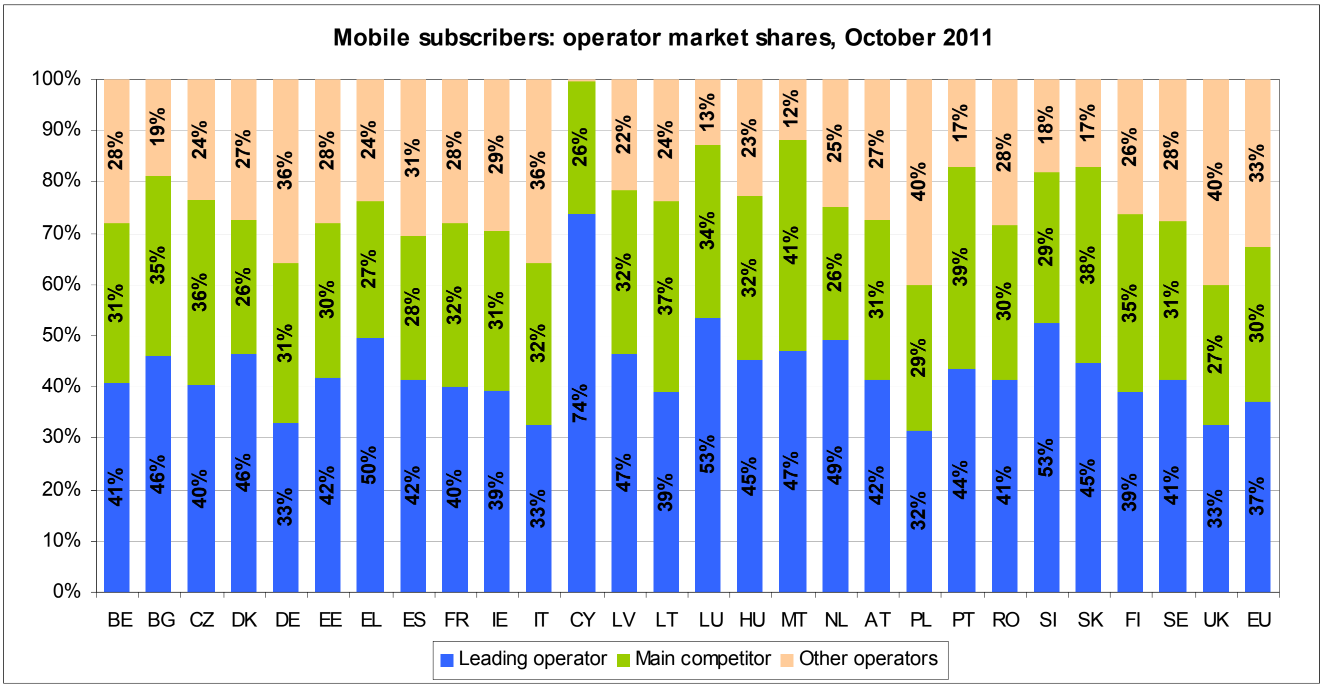
TeliaSonera is maintaining its leading position in the **mobile and fix market** and is acquiring new IPTV clients in a **broadcasting market** still dominated by cable TV. The fix market share decreased only marginally while the incumbent's mobile retail arm remained constant. The sector is, however, facing an increasing pressure on traditional business models for infrastructure providers, which have to compete with service providers operating in the IP environment, especially with the Voice over IP (VoIP) services that registered a significant increase. Mobile Termination Rates and Fixed Termination Rates are creating uncertainty in the market following retrocative claims linked to Court decisions.



Source: Commission services

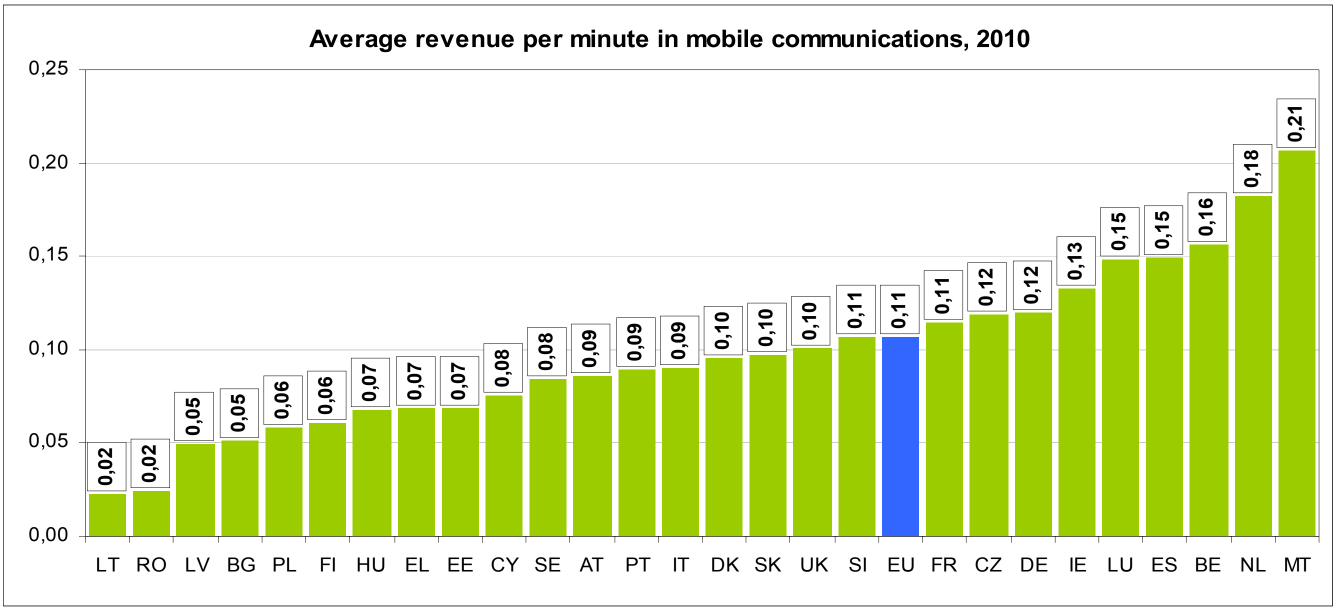
5.1 Mobile services

The mobile penetration rate in Sweden increased to 137.7% in October 2011, compared to 129.6% last year and was above the EU average of 127% with the overall number of subscribers increasing by approximately 2%. Mobile revenues are sustained while the number of mobile subscribers grows and the investments in mobile continue. In October 2011 the market share, by subscribers, of the incumbent mobile retail arm remained constant at 41.4% (Telia Sonera) whereas the second operator's market share was 30.9% (Tele 2). The combined market share of the remaining operators (including MVNOs) was 27.7%, of which 1.7% of MVNOs. There is a slight decrease of prepaid subscribers that stood at 36% if compared to 38% last year



Source: Commission services

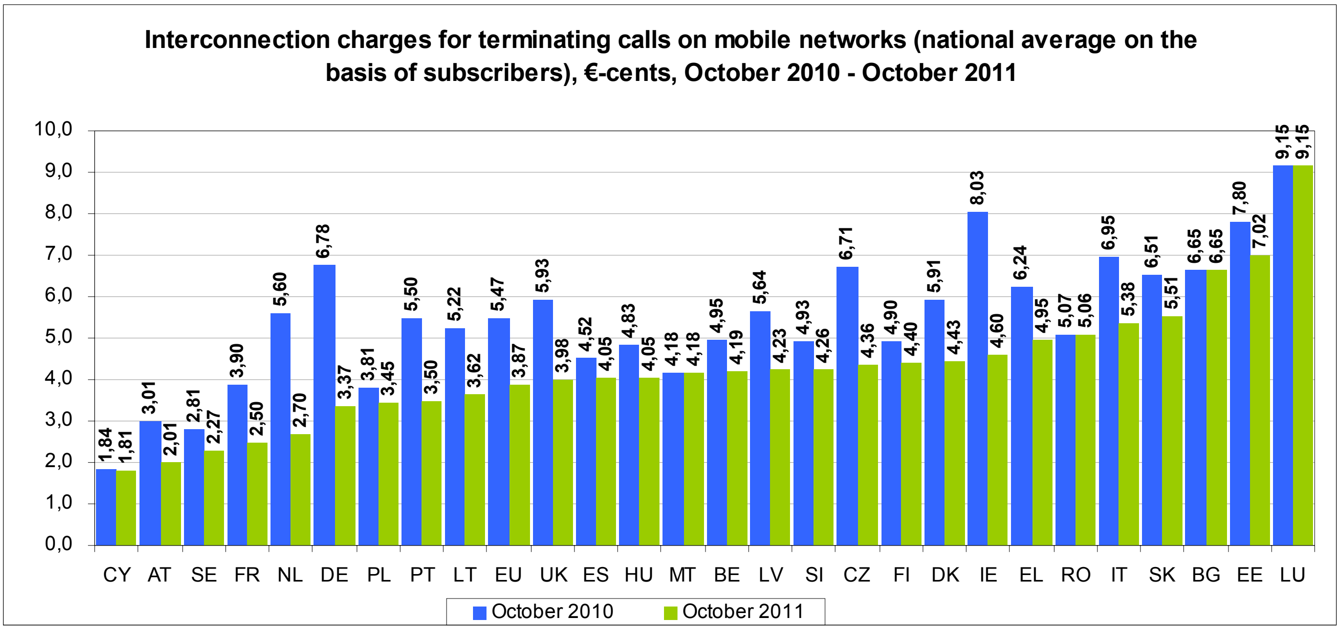
Sweden has prices for mobile phone calls above the EU average, with a price per minute of mobile communications, without VAT that was €0.08 at the end of 2010 compared to the €0.11 European average. Finally, Average Revenue per User (ARPU), which was already low in Sweden, decreased slightly (213 in 2010 from 215 in 2009).



Average revenue per minute in mobile communications, 2010

Source: Commission services

Mobile Termination Rates (MTRs) are the second lowest in the EU at €0.027 in October 2011 compared to €0.0387 in the EU. Many operators are worried about retroactive claims for mobile termination rates, which are expected following the judgement of the Administrative Appeal Court from June 2011, where due to a formal error in the PTS decision MTRs based on the 2003 LRIC model will have to be applied, instead of the 2007 LRIC model, as initially foreseen. The 2007 LRIC model was imposing lower MTRs, since the 3G costs were considered and not only the 2G. Operators are trying to find settlements to solve the significant retroactive invoicing they are facing. The Swedish Competition Authority is currently investigating whether such settlement measures could infringe competition law.



Interconnection charges for terminating calls on mobile networks (national average on the basis of subscribers), €-cents, October 2010 - October 2011

Source: Commission services

5.2 Fixed

In general, the fixed market is mature, and even in decline. The market share of VoIP operators continued to increase in terms of traffic volume (measured by the amount of minutes), and reached 14.2% in December 2010**,** compared to 11.0% in December 2009**.** Overall, the market share of the incumbent was stable at 58.8% for all types of calls by traffic volume in December 2010. , while for national calls the incumbent market share increased to 60.2% in December 2010, compared to 59.6% in December 2009. For international calls, however, the incumbent held a market share of 34.9% by traffic volume in December 2010, which represents a decrease compared to December 2009 when it held 36.8%.

Voice traffic on fixed networks decreased to 50.2% in 2010 of the total voice traffic from 53.2% in 2009, while according to 2011 NRA data the mobile voice traffic has already over passed the fix voice traffic.

Fixed Terminations Rates (FTRs) have also continued to decrease, and are among the lowest in the EU (€0.030 in October 2011, compared to the €0.43 EU average). The situation is similar at single transit level (€0.032 eurocents compared to the €0.62 EU average).

Many operators are worried about retroactive claims for FTRs which are expected following the Judgement of the Administrative Appeal Court from June 2011, where due to a formal error in the PTS decision, FTR based on the 2004 LIRIC model will have to be applied, instead of the 2008 LRIC model, thereby resulting in higher FTRs and leading to significant retroactive claims.

5.3 Broadcasting

Cable television continues to be the main broadcasting platform in Sweden with 2.4 million analogue subscriptions and close to one million digital cable subscriptions in June 2011 and an overall cable Tv penetration reaching 75.7%, which is the highest in the EU. According to the NRA data the analogue cable subscriptions increased by 1% and the digital cable subscriptions increased by 3% compared to June 2010**.** Satellite TV accounted for around 14.5% of household subscriptions, while the percentage of households using IPTV increased from around 9% in June 2010 to around 10.8% in June 2011. The increase in the number of subscriptions for IPTV via fibre represents a relevant evolution of the TV service market. According to NRA data DTT (digital terrestrial television) subscriptions in Sweden continues to decrease slowly to 637 000 subscriptions in June 2011, which can be estimated to around 13 %.

Must-carry obligations were reviewed in 2011 and currently apply to cable operators related to the public service for apartment buildings, while villas are excluded.

The wholesale market for national digital broadcasting transmission of free TV via the terrestrial network and for the national analogue terrestrial radio is regulated in Sweden. The second review of the market led to the imposition of remedies, including price control, on the only terrestrial network operator that is owning and operating the seven multiplexes, and which is obliged to accept reasonable requests for broadcasting. The public service's companies are imposed in their broadcasting licences to broadcast in the terrestrial network, buying broadcast transmission services from the only existing network operator.

Broadcasting licences for public service broadcasting enterprises are assigned directly by the Swedish Government. PTS then assigns radio transmitter licences to the national terrestrial broadcasting distribution network operator in the relevant frequency bands. . There is work ongoing to examine the appropriate coverage requirement for the terrestrial network and how other technology neutral means of distribution can be used to meet the requirement to reach 99.8% of population set out for the 700MHz band.

24. SPECTRUM MANAGEMENT

The NRA has allocated additional strategic spectrum in the 800 MHz and 1800 MHz band to market players, thereby supporting additional roll-out of mobile networks. The winning bidders of the 800 Mhz auctioning committed themselves to fulfill a specific requirement for the deployment of broadband in rural areas lacking broadband connection.

Spectrum Strategy

For its spectrum liberalisation process PTS planned to release a total of 500 MHz of new spectrum in the 2011-2013 period, mainly through competitive selection procedures, thereby promoting technology and service neutrality and allowing secondary trading. Also spectrum leasing is encouraged. A new Regulation has been developed but not yet approved, defining exemptions to the consent request procedure to be obtained by PTS.

Refarming and Digital Dividend

During 2011 the refarming of the 800 MHz- and the 1800 MHz-band has been finalised, awarding more frequencies on a technology and service neutral basis, and thereby fulfilling an important objective of the Swedish Government's Broadband Strategy.

In March 2011 PTS concluded the auction of licences in the 800 MHz band, assigning 3x(2x10) MHz to three winning bidders for a total auction revenue of approximately €233 million. Part of the amount paid for the licences (300.000.000 SEK) was reserved for mobile broadband coverage in rural areas. The license holder that won the frequency block 816-821 MHz, which is a network company created by two of the major players on the Swedish market, shall use this sum to cover those households and businesses that lack broadband.

In 2010 the assignment of the remaining 2x40 MHz of the 1800 MHz band had been postponed because of ongoing Court cases related to the 2009 decision by PTS, regarding the renewal of the licences of the existing operators in the 1800 MHz band. The uncertainty was linked to the various appeals against PTS decision to prolong the term of the licences granted in this band, making them technology and service neutral, while at the same time taking back some spectrum in order to allow a new entrant to avail itself of some of the spectrum in this band. In October 2010, the Administrative Court ruled in favour of PTS' decision, having considered a reduction in frequencies as reasonable and proportionate. These Court decisions were appealed by two operators, In May 2011, the Administrative Court of Appeal did not grant leave to appeal and PTS decisions thus became final. PTS rescheduled the auction of 2x35 MHz spectrum (reduced from the initially planned 2x40 MHz) for licenses of a duration of 25 years starting on the 1 January 2013. In August 2011 PTS approved the transfer of existing 1800 usage rights of two operators to a newly established network company owned by them, thereby creating the conditions for the new company to bid in the 1800 auction. Finally in October 2011 the frequencies that were vacated in the 1800 MHz band due to the re-farming had been allocated in an auction without a spectrum cap and with no coverage and roll-out requirements imposed. The incumbent and the network company of the two other operators won respectively 2x25 and 2x10 MHz, for a total auction revenue of approximately €148 million.

The pending Court cases concerning frequency allocation in the 900 MHz band were withdrawn thereby eliminating the previous uncertainty linked to the 900 MHz band.

Sweden's four major telecom operators now have access to a major block of assigned frequencies in various mobile frequency bands (800 MHz, 900 MHz, 1800 MHz, 2.1 GHz and 2.6 GHz).

25. CONSUMER INTEREST

7.1 116 - Harmonised numbers for services of social value

Availability of 116 harmonised numbers has improved due to the assignment of the emotional support hotline.

The 116 123 emotional support hotline has been assigned and is operational since 7 February 2011, whereas the 116 111 child helpline is already in operation since February 2009. The non-emergency medical on call-service 116117 has been assigned, but is not yet operational.

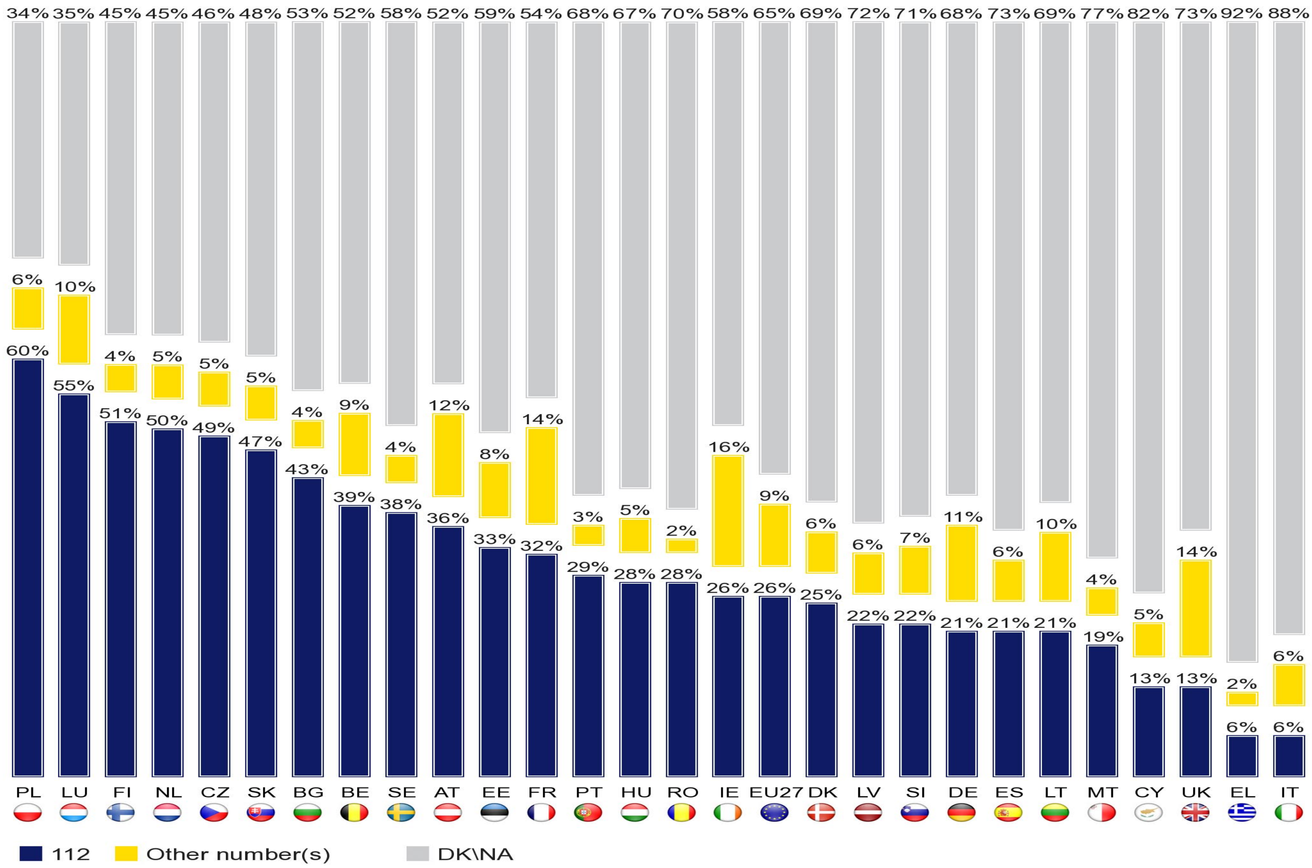
7.2 112 – European Emergency number

112 is the sole emergency number in Sweden and the level of awareness of 112 as the European Emergency Number is higher then the EU average.

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

The emergency number 112 is the sole emergency number in Sweden and calls are received by a single organisation (SOS Alarm) that also supports various projects intended to ensure equal access for disabled end-users. It is possible to call 112 from the three relay services PTS provides. They are video relay, text relay and Teletal, a relay service for the speech impaired. SOS Alarm has also text telephones which mean that users can call 112 directly with text telephones. SMS 112, the possibility to contact the emergency services through text messages, is part of the emergency services for registered users, but it is not possible to register a foreign number to SMS 112. A requirement to locate all callers, including end users of foreign mobile operators roaming in Sweden, has been introduced in secondary legislation and Swedish authorities are working on a technical solution that will ensure the implementation of the technology needed to locate callers using international roaming services .

In terms of awareness, according to the Eurobarometer survey[38] the majority of Swedes (96%) reported that they would call the emergency number 112 when confronted with an emergency situation in their own country, which is the highest level within the EU, but only 38% of Swedes knew that they could reach emergency services from anywhere in the EU by calling the European emergency number 112, which is still higher then the EU average of 26%.

7.3 Net neutrality and Quality of service

The NRA has been given new regulatory powers to address net neutrality issues and operators are starting to offer differentiated packages based on the inclusion of VoIP services.

In 2011 the NRA carried out an in depth study of the level of transparency concerning limitations in Internet access services in collaboration with the Consumer Agency. Following the transposition of the provisions in the EU regulatory framework on net neutrality, the NRA has been given new regulatory powers to address issues connected with the transparency of download speeds, traffic management and other contractual limitations. A report of an organization[39] which examined how fixed and mobile Internet service providers in Sweden regulate the flow of traffic on their networks, revealed that some operators have been systematically slowing down traffic, and that mobile traffic gets throttled for P2P use in Sweden.

Operators are already offering differentiated packages, based on the inclusion or not of VoIP services. They are also publishing traffic policies, explaining priorities to be applied in case of traffic congestion, when peer to peer file-sharing protocols can be downgraded.

7.4 Consumer complaints, tariff transparency

The Consumer Agency and the Telecom Advisors are working on agreements tackling the issues of clearer and fairer contract terms, SIM unlock and contract duration and provision of information to consumers.

During 2011, 20 % of all the complaints made to the Swedish Consumer Agency concerned electronic communications. Of all the 794 complaints regarding telephony services, the majority related to unfair commercial practices (282 complaints), unfair contract terms (278 complaints) and unsolicited communication (138 complaints). The majority of the 405 complaints regarding Internet services related to unfair commercial practices (164 complaints) and unfair contract terms (194 complaints). Many complaints were also linked to e-mail spam (2476 complaints). Swedish consumers were also complaining about television services (215 complaints), mainly focusing on unfair commercial practices (102 complaints) and unfair contract terms (89 complaints). The Consumer Agency is cooperating with the electronic communications operators, and is working on an agreement regarding mobile contracts, aimed at tackling the issues of SIM unlock and contract duration.

The Swedish Telecom Advisors (TA) is owned by the Swedish IT and Telecom Industry Association. The electronic communications operators wish, in this manner, to contribute to

[38]Eurobarometer Flash survey on the European emergency number 112 (February 2012)

[39] Report "The Health Status of Net Neutrality – The Operators' Impact on Internet Traffic" published by the Internet Infrastructure Foundation, responsible for operating the top Swedish domain (.SE) and national domain name registry

solving the problems created for consumers in the sector, whilst involving also PTS and the Swedish Consumer Agency in its Board. TA works inter alia with the provision of information to consumers, since they consider that better informed consumers might lead to certain problems being avoided altogether. TA inter alia informs the operators about laws and regulation, and practice from Courts and from the National Board for Consumer Disputes (alternative dispute resolution). If the operator and the consumer cannot find a solution, TA will attempt to contribute to a solution through mediation, and by arranging regular meetings with operators both individually and in larger groups. TA also works on issues such as the marketing of broadband speeds, a code of conduct regarding the provision of information when new contracts are agreed, an agreement on the provision of information when number portability fails, clearer and fairer contract terms. TA's activity contributed to a reduction of cases for alternative dispute resolution.

7.5 Number portability

The time taken to port fixed and mobile numbers was on average three days, nevertheless in 2011 procedures for contract termination, sim cards locks and switching costs might have acted as a disincentive for changing service providers.

Sweden registered 163.831 fixed number porting transactions in the firs nine months of 2011 (Jan- Sept 2011), which represents a significant reduction when compared with 170.868 in the first nine months of 2010. During the first nine months of 2011, 359.086 mobile numbers were ported, compared to 402.209 of 2010 (Jan – Sept 2010), and the percentage of mobile numbers ported over the number of mobile subscribers in January to September 2011 stood at 3%. The time taken to port fixed and mobile numbers was on average three days in 2011. PTS has limited powers to influence contractual conditions, procedures for contract termination and switching costs that might act as a disincentive for changing service provides, such as SIM cards lock with a different expiration date than the minimum contract time, and a binding notice period of three months.

7.6 Universal service

Sweden has adopted measures to ensure access to a broadband connection of at least 1 MBps to all.

While there is no nationwide designated universal service provider, PTS aims to ensure since December 2011, functional access to the Internet with a minimum speed of 1 MBps.

Telephony services provided through fixed and wireless solutions, directory enquiry services and functional Internet access, are catered for by market players, except when there is public procurement in exceptional circumstances. There has been public procurement for 16 cases of far-off subscriber connections (extremely remote households to be covered via the 450 MHz-band, satellite and repeater technology).

Technical conversion is taking place in rural areas from old copper landlines to wireless solutions, since the incumbent's landlines and poles are at the end of the life cycle.

Equivalent access for disabled end users is ensured through procurement of services that are free for end users, including text telephony, video telephony, teletal (third party call interpreting speech and giving memory support), services for the hearing- and vision impaired, and free directry enquiries.

7.7 e-Privacy

No major issues on e-Privacy were reported.

Swedish legislation transposing the EC regulatory package has inserted the obligation to obtain the users' consent for storing and accessing information on users' terminal devices, which affects inter alia, but not exclusively, so-called cookies. Cookies necessary for a service requested by the user are exempt from this obligation. The NRA has issued a FAQ on basic topics related to the use of cookies.

EUROPEAN COMMISSION

Information Society and Media Directorate-General

Electronic Communications Policy

Implementation of Regulatory Framework

18 June 2012

•

SLOVENIA

2011

Telecommunication Market and Regulatory Developments

Slovenia

26. Main market & regulatory developments: best practices and challenges

Development of the sector

In 2010, the **investments** in the Slovenian electronic communication sector amounted to €180 million and continued to follow a downward trend, especially if compared to the higher levels before the 2008 economic downturn. **Revenues** generated in the Slovenian electronic communications sector decreased as well and totalled €1 068 million in 2010, with higher overall revenues in the mobile than in the fixed market.

The Slovenian electronic communication market remains concentrated with Telekom Slovenije maintaining a significant leadership even if its market share is constantly decreasing in all markets and the market leader in FTTH is a competitor (T2). In the **broadband market** access to the fibre of the incumbent (Telekom Slovenije) has been enabled, following the latest NRA decision and has lead to new competitive offers on the market. The competitive situation is therefore showing signs of development in a broadband market that is not growing significantly, where the incumbent's market share decreased slightly to 41.8% that is below the EU average.

In the **fixed market** the concentration is high if compared to other EU countries with a 72.6% market share of the incumbent, while in the **mobile market** the leading mobile operator (Mobitel) merged into the incumbent's company (Telekom Slovenije). Even though it continued to lose market share at the advantage of the three competitors (Simobil, Tušmobil, T2), Telekom Slovenije registered a mobile market share of 52.6%, which is the third highest market share of a leading mobile operator in the EU countries.

VoIP and IP based services are quickly developing in Slovenia, with a strong uptake of IP telephony, usually offered in affordable packages in combination with other electronic communications services such as broadband, IP-TV and mobile telephony

The Slovenian **broadcasting market** is characterized by the highest IPTV penetration in the EU, with 25.4% households having an IP TV connection. The take-up of bundles continues. The only private broadcast network operator operating the second national multiplex was impacted by the delay in the approval of the amendments to the Digital Broadcasting Act.

Number portability in mobile and fix networks was usually done within three days.

Progress in broadband deployment and take-up

The market did not register significant developments during the reporting year, with a slight increase in the number of broadband connections. However, consumers in rural areas are benefiting from new ultra fast services offered through the first finalised open networks projects, co-financed with European funds.

Slovenia is however widening the distance from the EU average in fixed broadband penetration due to faster developments in other EU countries and is particularly lagging behind in terms of mobile broadband take-up. The NRA is publishing expressions of interest to joint investment to encourage co-investments in infrastructure and exploit the cost reduction potential in civil works.

At the end of 2011, Slovenia was failing short of achieving the DAE target aiming at securing a basic broadband connection for all EU household by 2013. Progress in the deployment of high-speed (30 Mbps) and very high-speed broadband (100 Mbps) has so far been even more challenging, especially in terms of take-up. Even if the FTTH penetration in Slovenia is relatively high compared to other EU countries, there are only 4% broadband lines with a speed of more then 30 MBps. Slovenia is preparing a new comprehensive electronic communication strategy that has still to be adopted and will include strategies and measurements for achieving the DAE broadband targets.

Independence and effectiveness of the NRA

A new head of the NRA, the Agency for postal and electronic communications (APEK[40]), was appointed in October 2011, for a fixed term of office of 5 years, following legislative amendments to the dismissal conditions that had lead to the closure of the infringement case on the NRA's independence.

Implementation of the framework

While independence requirements for the regulator have been strengthened in 2011, Slovenia has not yet adopted all legislation aimed at transposing the revised regulatory package, which was due by 25 May 2011. At the end of 2011 there was no pending infringement in Slovenia, except for the non communication cases related to the transposition of the new regulatory framework. Following early elections in December 2011, a new Government has been formed, and a new draft law is planned to be approved by the new Parliament at the earliest in June 2012.

Spectrum management

Uncertainties in the frequency strategy and the delayed allocation of available spectrum resources are slowing down the development of Long Term Evolution (LTE) in Slovenia and affecting decisions on investments. The adoption of a new frequency strategy, included in the renewed overall electronic communication strategy should allow the assignment of available frequencies to support additional roll-out of mobile networks.

Citizens and consumer protection

[40] Agencija za pošto in elektronske komunikacije

Availability of 116 harmonised numbers has improved due to the assignments of the 'helpline for missing children and the 'child helpline'.

112 is the mainly used emergency number in Slovenia, and SMS text message service to 112 was introduced at the beginning of 2012, however the level of awareness of 112 as the European Emergency Number is lower then the EU average.

Main sources of consumer complaints were related to pricing and billing, accordingly the NRA is proposing measures to increase tariff transparency. A supervision procedure is ongoing on problems reported in relation to directory prices. No concerns have been raised in relation to openness of the Internet and inappropriate traffic management practices. A supervision procedure is ongoing on problems reported in relation to directory prices applied by the designated provider of directory enquiry services and directories.

27. NATIONAL REGULATORY AUTHORITIES (NRA)

A new head of the NRA, the Agency for postal and electronic communications (APEK), was appointed in October 2011, for a fixed term of office of 5 years, following legislative amendments to the dismissal conditions that had lead to the closure of the infringement case on the NRA's independence.

The Commission decided to close the infringement proceeding against Slovenia on the independence of the NRA, after the country amended its national law (Zekom-C) in accordance with the EU electronic communications rules in April 2011. The new law lays down strict conditions for the appointment of directors and acting directors of the national electronic communications regulator, and limits the Government's discretion in removing the head of the regulator, defining clearly limited circumstances for dismissal.

In October 2011 the new Director had been appointed, and operators that had been previously questioning the independence of the NRA, and the regulatory instability linked to constant changes at the head of the NRA, now have expectations about more effective enforcement and supervision of remedies, and a quicker implementation of the frequency strategy, which could make strategic spectrum resources available to market players.

APEK's budgetary autonomy is ensured through financing from the fees collected from network operators, service providers, frequency licence holders, numbering space licence holders and postal operators. Administrative costs and common costs are allocated to specific cost centres according to cost incurred and to allocation models. However additional competencies have been conferred to APEK in Autumn 2011, covering new fields of activity (audiovisual media services, railways), and uncertainties remain regarding the staff and the financing of those new activities, since in the long term separate funding for these new competences is to be provided through the legislation in the area of railway traffic and through secondary legislation in the area of media that is under preparation. Moreover, the NRA's efficiency has already been indirectly affected by the salary cuts and the decrease in staff numbers experienced in previous years_ in line with the Civil Servants Act and also with the Public Sector Salary System Act applicable to all civil servants.

During 2011 the NRA had not finalised any new market analysis, but notified to the Commission details of remedies on end-to-end connectivity in wholesale markets in Slovenia, and specifically recommended practices regarding the provision of access by operators with significant market power (SMP) in case of non-payment of bills by an access seeker in Slovenia. The Commission commented that the choice of a recommendation to specify access obligations does not ensure the necessary level of legal certainty needed by operators, and that details of the access obligation should be better specified in a legally binding measure, either within the procedure of supervision and approval of the relevant Reference Offers, or by means of a decision complementing APEK's decisions imposing the access obligation on SMP operators.

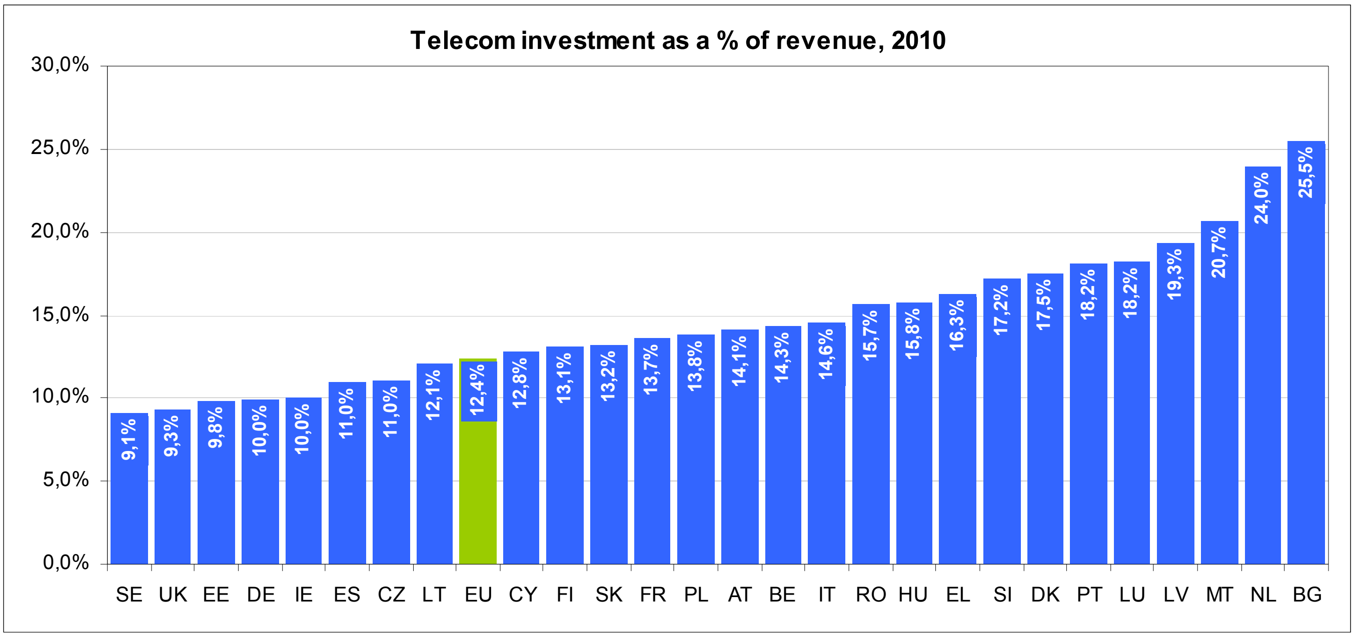
The NRA mediated two dispute resolution cases initiated in 2010 and decided upon a third case, while one operator appealed against APEK’s decision claiming that APEK unlawfully dismissed part of the case due to the parallel supervisory procedure.

Concerns have been expressed by operators since some of their complaints addressed to the NRA were treated exclusively in the framework of a supervisory procedure, where the operator does not automatically have party status if it does not demonstrate its legal interests are in question. The regulator was not willing to initiate parallel dispute settlement procedures, claiming that the problem can be successfully resolved in the supervisory procedure. Operators expressed disappointment in relation to the fact that the legal participation of third parties in supervisory procedures lead by APEK, which analyse potential breaches of SMP obligations, is only possible if such party demonstrates his legal interest. Operators were also disappointed in relation to the fact that only parties participating in the procedure of SMP designation are automatically granted the right of appeal. As it is quite difficult for other operators to obtain status of a party in such procedures, the SMP decision can in practice be appealed only by identified SMP operator, to whom remedies are directed. This aspect is considered even more problematic given the fact that there is no procedure of approval by the NRA foreseen for the Reference Offers of the SMP operator.

Operators also expressed concerns in relation to the effectiveness of the National Competition Authority, which is allegedly missing adequate financial and staff resources.

28. REVENUES AND INVESTMENTS

In 2010, the investments continued to follow a downward trend, especially if compared to the higher levels before the 2008 economic downturn. Revenues generated in the Slovenian electronic communications sector are decreasing as well, with higher overall revenues in the mobile than in the fixed market.



Source : Commission services

In 2010, investments in the electronic communications sector of Slovenia (totalling €180 million) decreased by 20.7%, with a decrease of both fix (from €126 to €106 in 2010) and mobile investments (from €59 to €45 in 2010). Revenues generated in 2010 totalled €1 049 million, decreased by 2.8 % in comparison with 2009. . Mobile revenues reaching €560 million in 2010 were higher than fixed ones (€419 million), in line with the EU average, for a total sector revenue of €1049 million.

The ratio of the electronic communications sector investments over revenues was 17.2%, which is above the EU average of 12.4%.

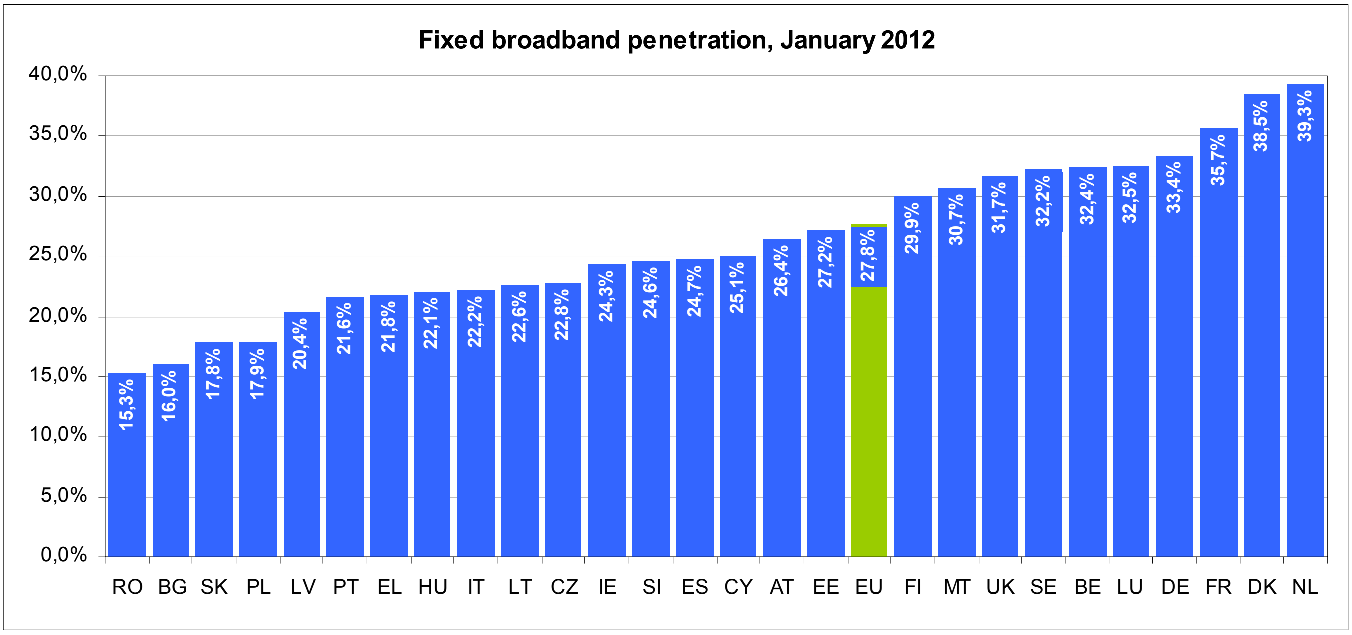
29. BROADBAND

The market did not register any significant developments during the reporting year, with a slight increase in the number of broadband connections. However, consumers in rural areas are benefiting from new ultra fast services offered through the first finalised open networks projects, co-financed with European funds. Access to the fibre of the incumbent has been enabled, following the latest NRA decision, and has lead to new competitive offers on the market.

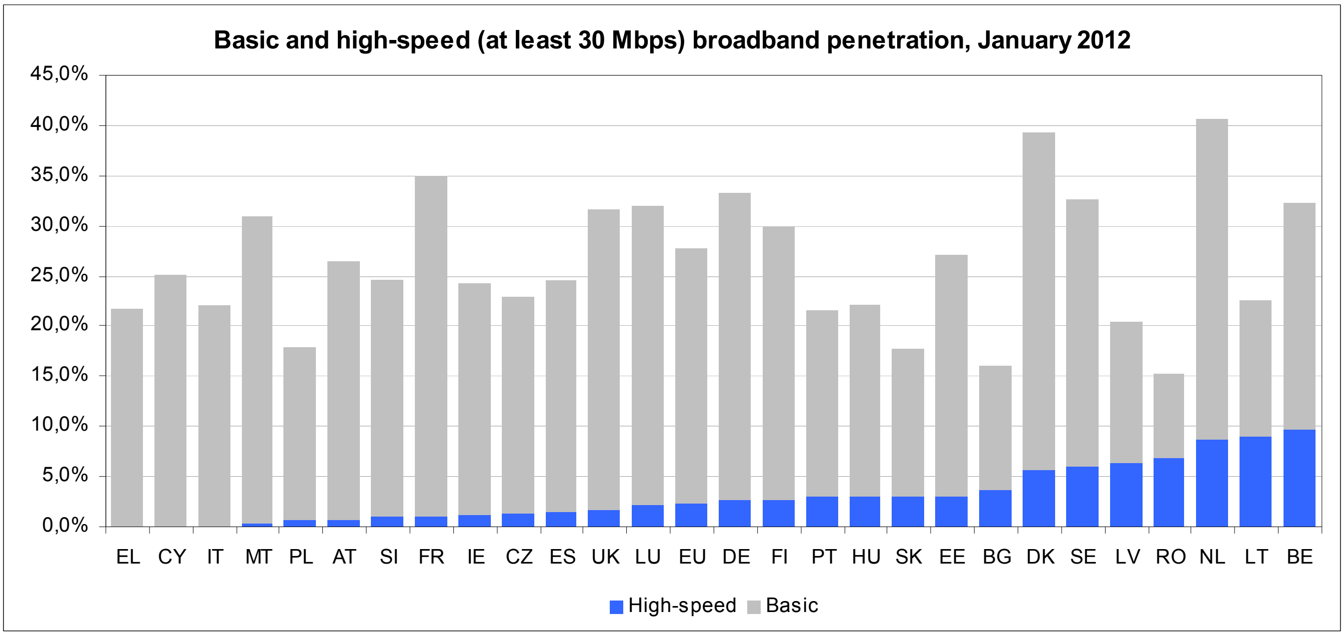
Slovenia is however widening the distance from the EU average in fixed broadband penetration due to faster developments in other EU countries and is particularly lagging behind in terms of mobile broadband take-up. At the end of 2011, Slovenia was probably failing short of achieving the DAE target aiming at securing a basic broadband connection for all EU household by 2013. Progress in the deployment of high-speed (30 Mbps) and very high-speed broadband (100 Mbps) has so far been more challenging, especially in terms of take-up, even if the FTTH penetration in Slovenia is relatively high compared to other EU countries, there are only 4% broadband lines with a speed of more then 30 MBps. Slovenia is preparing a new comprehensive electronic communication strategy that has still to be adopted and will include strategies and measurements for achieving the DAE broadband targets.

4.1 Market situation and regulatory developments

The broadband market is relatively stable in Slovenia with the fixed broadband penetration slightly increasing to 24.6% in January 2012 (503.677 connections) compared to 24.1% (494.542 connections) in January 2011, with an average of 72 additional fixed broadband lines per day. Considering faster developments in other EU countries, Slovenia is widening its distance from the EU average of 27.7% in January 2012, with a penetration growth of only 0.43%, compared to an EU average growth of 1.25%.



Source: Communications Committee



Source: Communications Committee

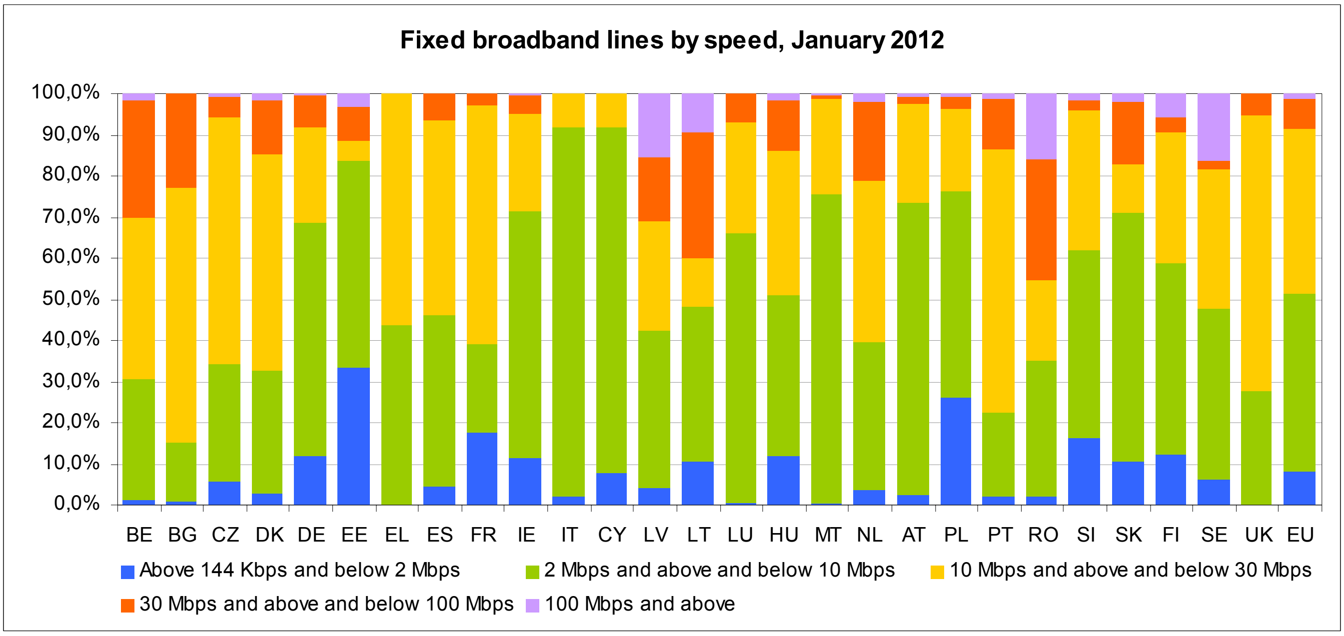
The DSL technology, with a 55.3% market share in January 2012, remains the leading technology, notwithstanding a recent decrease in market share by 1.8% points, is still well below the EU average of 76%. Cable is also relatively well developed in Slovenia, with an increasing market share of 26.8%, well above the EU average of 17%. It was the preferred technology for new connections in 2011, immediately followed by Fibre to the Home (FTTH). According to NRA data[41], the fibre broadband market share is relatively high in Slovenia, representing 15.9% of the market in January 2012, compared to 14.7% in January 2011. Operators also provide broadband services in rural areas, using the multichannel multipoint distribution system (MMDS) wireless technology in the 11 GHz band.

The incumbent's market share has continued to follow a downward trend and stood at 41.8% in January 2012 (below the EU average of 43%), which marked a decrease of 1.4 percentage points from January 2011. The incumbent has a stronger presence in the DSL broadband market than in the FTTH market, with a DSL market share of 63.9% (0.2 % less than last year's figure), and a FTTH market share of 40.5% according to NRA data. The incumbent's FTTH market share is less than its main competitor's market share in the FTTH market of 50.6%. However, the main competitor is subject to a pre-bankruptcy compulsory settlement procedure that is therefore limiting its investments in fibre infrastructure. In rural areas the incumbent is maintaining a significant leadership of access lines, compared to strong infrastructure competition in urban areas with migration from copper to other technologies (cable and fibre). There is, however, some new competition starting also in the rural area, where cable operators are acquiring new clients with a wider offer of the MMDS wireless technology and triple play. APEK issued decisions to regulate this service, based on the assumption that the assigned frequencies have potential problems of interference with

[41] APEK quarterly report on the developments of the Electronic Communication Market – February 2012 (Poročilo o razvoju trga elektronskih komunikacij za četrto četrtletje 2011)

satellites. One affected operator launched an appeal to the Administrative Court against those decisions.

Broadband speeds remain feeble, and 16.4% of connections had a speed of less than 2 MBps in January 2012, compared to the EU average of 8.2%. 45.5% of broadband lines had a speed of between 2 and 10 MBps and 38.1% of broadband lines were above10 MBps and more, which is still below the EU average of 48.4%. The relatively high FTTH penetration in Slovenia is not reflected in very high speeds with only 2.4% of broadband lines with a speed of between 30 and 100 MBps and 1.6% with a speed of more than 100 MBps.



Source: Communications Committee

The main form of wholesale access to the incumbent's network remains the fully unbundled local loop, representing 61% of alternative operators' access lines, followed by 25% using bitstream, and 14% for shared access in January 2012. The number of fully unbundled local loop lines has increased (61 218 lines were unbundled in January 2012, compared to 58 746 one year before) as well as bitstream (25 110 lines), whereas the number of shared access lines has continued to decrease, and stood at 14 055 (as opposed to 17 140 in January 2011).

The remedies imposed as a result of the market analysis for the wholesale physical network infrastructure access, and for wholesale broadband access, are finally operational since spring 2011.

On the wholesale market for physical network infrastructure access, which was defined in 2010, the NRA regulated the relevant market for the provision of local loops and sub-loops (including full and shared access) over copper and fibre, as well as shared use of facilities or collocation. The NRA excluded cable networks from the relevant market. The incumbent was designated as an operator with significant market power (SMP) on this market, and was imposed a set of obligations on all relevant services. With regard to the price control obligation, the NRA has developed a LRIC model based on current cost accounting.

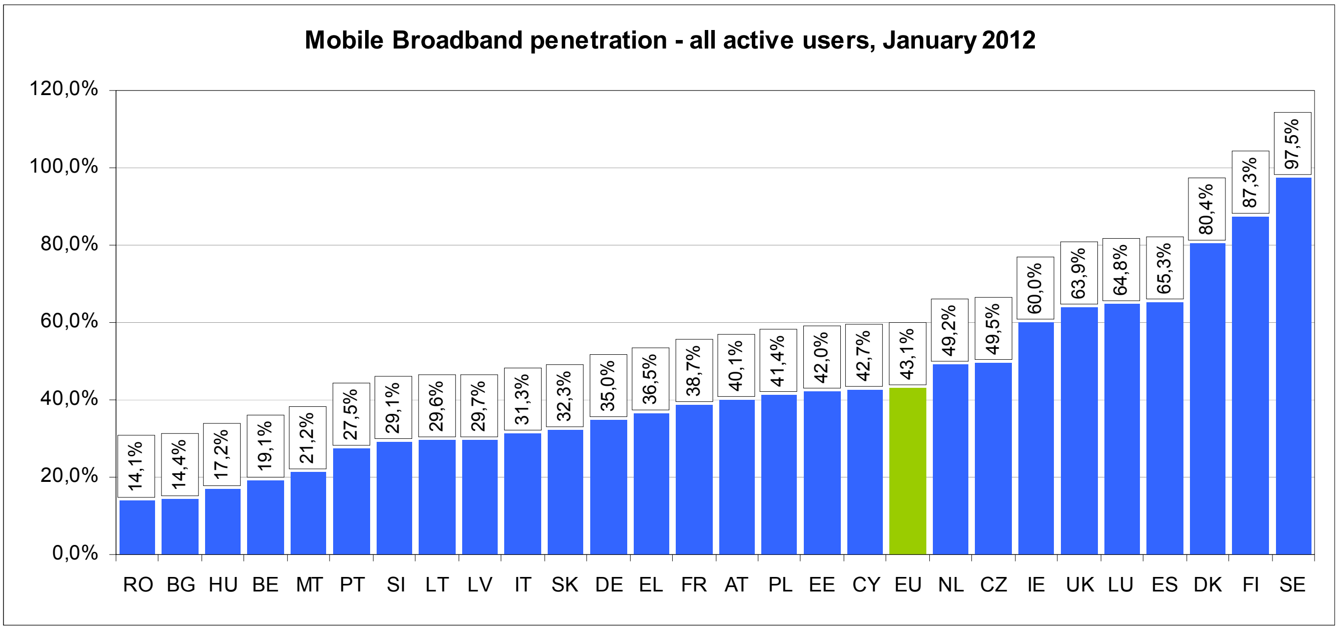
On the wholesale broadband access (WBA) market defined in 2010, the NRA regulates the relevant market including bitstream access via copper and fibre access connections and excluded cable infrastructure based on its substitutability analysis. The optical fibre network of the main alternative operator was however excluded from the relevant market. The incumbent was designated as an SMP operator and required to provide bitstream access, to publish a reference offer and to apply a retail minus methodology imposing a prohibition on margin squeeze. The Commission expressed some concerns regarding the proposed pricing remedies and suggested the imposition of cost-orientated access if competitive constraints at the retail level were not considered to be sustainable over time.

In 2011 the incumbent finally enabled access to its fibre network and some operators started to offer to their costumers services based on an unbundled point to point fibre, even if some barriers still persist, such as long term contractual obligations that apply to end users.

Operators are complaining that the remedies would sometimes not be detailed enough to address the competition problems, in particular in regard to price regulation. Duct access, which is imposed as a remedy, is not really operational on the market. Operators claim that the incumbent's duct access, which is limited to the node for copper local loop, is subject to unclear procedures and conditions. Also, allegedly high prices for duct access are hindering additional investments to next generation access networks.

Since 2010 APEK also made use of new competencies regarding rights of way and facility sharing assigned to it in 2009 (Zekom-B) to encourage co-investments in infrastructure. In cooperation with the Geodetic Administration (the Surveying and Mapping Authority of the Republic of Slovenia) APEK is publishing the expression of interest to co-invest on its web-site, that registered 14 calls for co-investment in 2011 (compared to 17 calls in 2010). Replies to investment requests are not communicated to APEK and the NRA is therefore not able to monitor the efficiency of this instrument.

Mobile broadband is not yet as popular in Slovenia as it is in other EU countries, and there are no significant signs of substitution between fixed and mobile broadband. The penetration rate of mobile broadband was 29.1% in January 2012, which is well below the EU average of 43.1%. Penetration on large screens, as measured by dedicated data services/cards/modems/keys, has been stable at 2.5% in January 2012, which is the lowest in the EU, and therefore well below the EU average of 8.1% in January 2011.



Source: Communications Committee

4.2 National Plans, private & public investments

The Slovenian Broadband strategy was adopted in July 2008, and defined quantitative broadband targets: basic broadband coverage for 100% of Slovenian citizens by 2010, broadband coverage of a minimum speed of 2 MBps for 98% of the population by 2012, broadband coverage at 20 MBps and availability of triple play for 90% of the population by 2015. Also, a longer term objective was defined, targeting the availability of FTTH or comparable broadband connections of greater capacity for 90% of the population by 2020. A revised strategy is under preparation, since the targets for 2010 and 2012 will not be reached. The Ministry has set up working groups for the development of a comprehensive electronic communication strategy, that should include the measurement of how targets are achieved, and the possibility of introducing corrective measures if targets are not fulfilled.

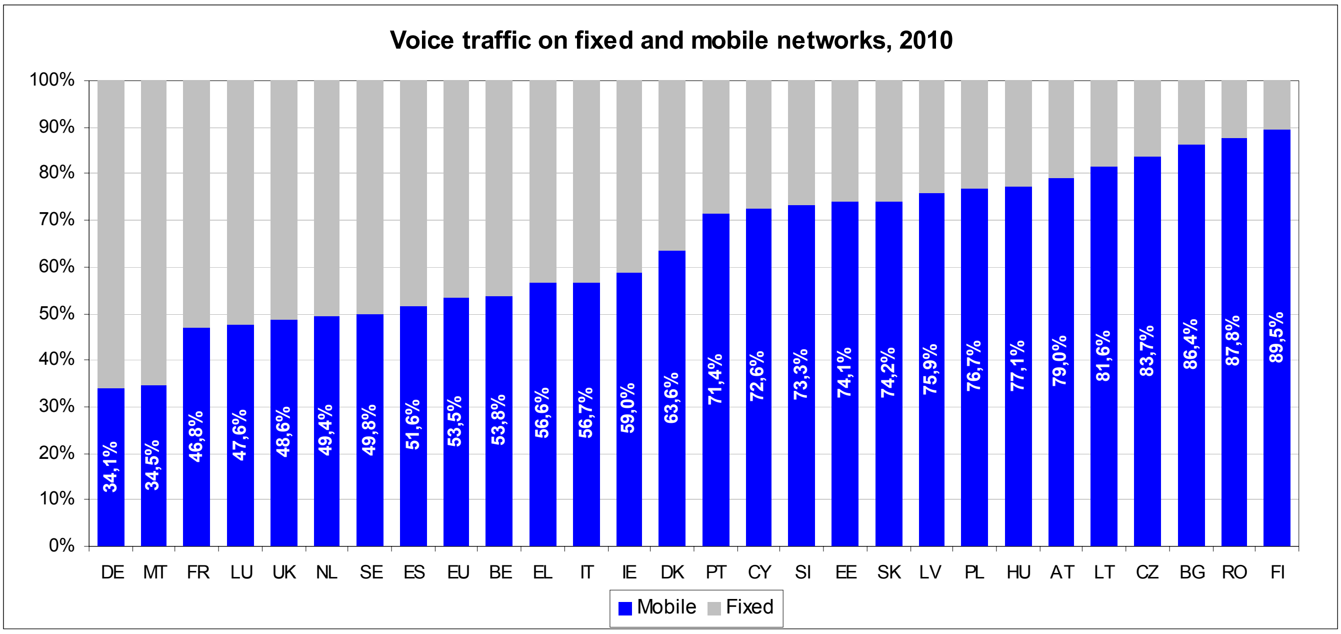
The European Fund for Regional Development (ERDF) invested in Public Private Partnership (PPP) projects in "white spot" areas, with the aim of achieving 100 % coverage. The process is driven by municipalities and the total amount of EUR 82.3 million (of which approx. EUR 70.0 million comes from ERDF co-financing) was assigned through two calls for proposals published in 2007 and in 2010. Contracts have been signed for all the resources available, with €36.7 million signed in 2011 for 5 additional projects. The European Agricultural Fund for Rural Development (EAFRD) provided €4.26 million under the Recovery Package (€3.842 million of which is co-financed by EAFRD) for broadband projects in rural areas. Effects of these initiatives are finally also reflected on the market, where operators started to offer new ultra fast services in rural areas through connections to the publicly financed fibre open networks. Access to those networks is not regulated and some operators are therefore lacking a transparent pricing. In many cases the open networks are in competition with the upgraded incumbent's infrastructure, following investments in rural areas where the incumbent upgraded its copper network.

30. VOICE AND OTHER ECOMMUNICATION SERVICES

VoIP telephony and IPTV are quickly developing in Slovenia, with a strong uptake of IP telephony, usually offered in affordable packages in combination with other electronic communications services such as broadband, IP-TV and mobile telephony. The take-up of bundles continues.

Uncertainties in the frequency strategy and the delayed allocation of available spectrum resources are slowing down the development of LTE in Slovenia. Mobile termination rates are higher than the EU average.

Voice traffic on fixed and mobile networks, 2010

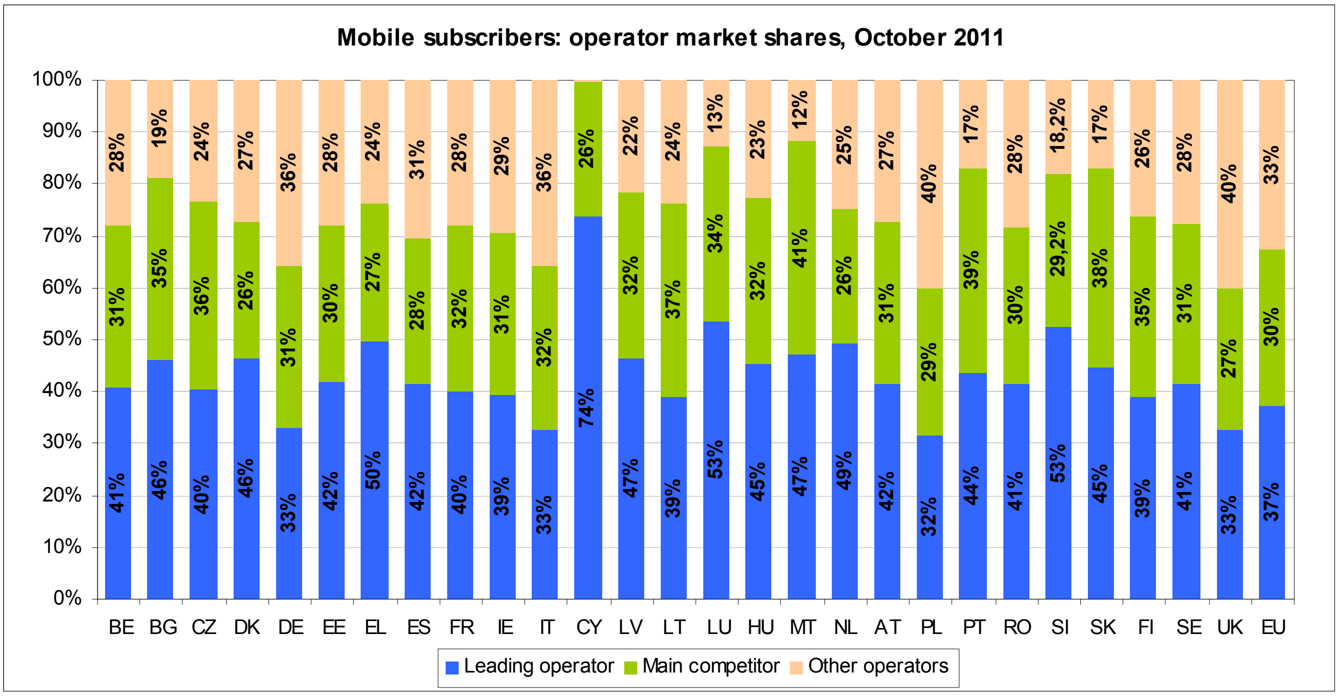


Source: Commission services

5.1 Mobile services

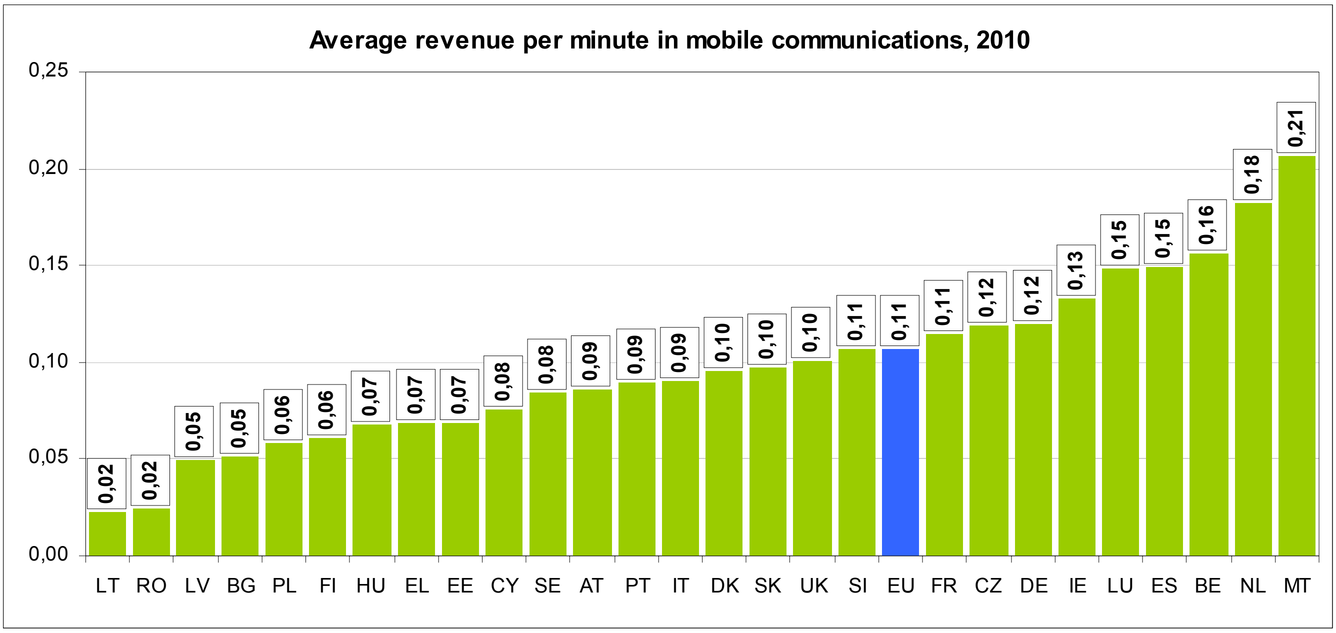
The mobile penetration rate increased slightly to 105.5% in October 2011 (103.1% in 2010), which is a marginal increase of more than 2 percentage points since 2010, but remains well below the EU average of 127%. The majority of subscribers on the Slovenian national market are using postpaid products (70 %). The annual average revenue per user (ARPU) decreased to €221 in 2010 (compared to €272 in 2009) which is equal to the EU average.

The mobile market is relatively concentrated. The leading mobile operator (Mobitel) merged into the incumbent's company (Telekom Slovenije) in July 2011, but even if it continued to lose market share at the advantage of the three competitors (Simobil, Tusmobil, T2) it registered a mobile market share of 52.6% in October 2011, compared to 55.4% in 2010, which is the third highest market share of a leading mobile operator in the EU countries, while the market share of the closest competitor stood at 29.2%, and the market share of other competitors together at 18.2%.

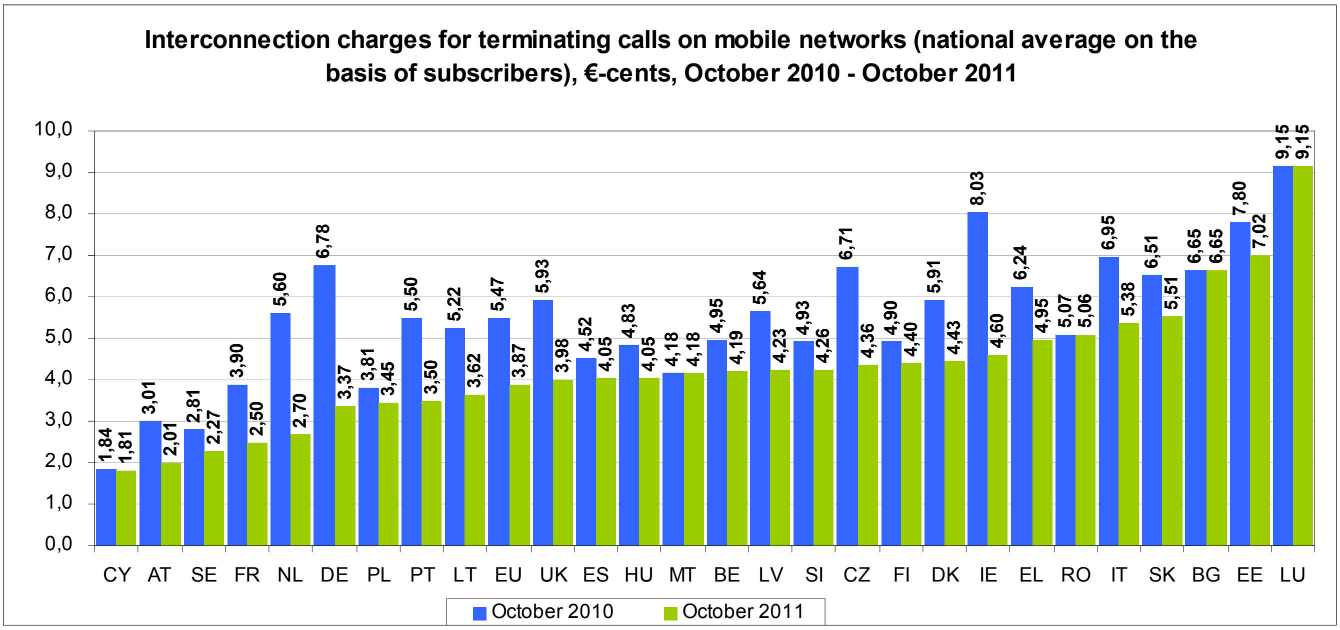


Source: Commission services

In Slovenia, prices for mobile phone calls are slightly higher than the EU average of €0.08, with a price per minute of mobile communications, without VAT, of €0.11 at the end of 2010. Mobile Termination Rates (MTRs) are also higher than the European average, standing at € 0.0426 in October 2011, compared to €0.0387 in the EU.



Source: Commission services



Source: Commission services

The mobile market is characterised by a high degree of infrastructure competition, taking into account the size of the market, and this situation is hardly sustainable for some players. Investments in base stations for GSM and UMTS system are ongoing, even though licences are expiring in 2013, and operators are therefore taking a regulatory risk. LTE is not yet available in the market and its introduction is delayed due to frequency issues.

The two MVNOs, having a share of 7.1% in 2011 based on the incumbent's networks, are facing huge uncertainties, since the retail prices of some alternative operators are below the wholesale charges.

Operators are subject to *ex-ante* regulation in the market for voice call termination. The incumbent and its major competitor are, however, running a bill and keep system due to disputed payments on the market for voice call termination and a lawsuit filed against each other. The leading operator has been designated as an operator with SMP on the market for wholesale access and call origination in public mobile networks. Following complaints by operators the NRA has started a supervision procedure against the incumbent regarding the reference offer.

Operators perceive the regulation of the mobile market as unbalanced, and several disputes and complaints are linked to a suspected abuse of dominant position both on the retail and wholesale market, and an alleged anticompetitive behaviour of the leading operator (margin squeeze and predatory pricing)[42].

All Slovenian mobile operators have set retail roaming prices in compliance with the maximum level indicated by the Roaming Regulation of 2009. The majority of operators introduced special offers for areas formally outside the scope of the Eurotariff that are of larger interest for Slovenian roamers - e.g. states of former Yugoslavia or the wider area of Balkan.

5.2 Fixed

VoIP telephony is widely developed in Slovenia. The VoIP operators' market share by traffic volumes is increasing significantly reaching 36.7% in December 2010, compared to 29% of 2009, well above the EU average of 23.1%. The increase is even more significant if we consider VoIP in terms of the number of connections, since it reached 46.6%.in December 2011, according to NRA data. The market share of the incumbent in VoIP decreased to 39.4 % in December 2011, compared to 42.7% a year before.

According to the NRA, the overall PSTN market share in terms of the number of connections is significantly decreasing, stopping at 39.5% in December 2011, which was down from 45.3% in September 2010 and 43.7% a year ago (in December 2010).

The fixed telephony market concentration, which is currently at relatively high levels if compared to the EU average of 56.2%, has decreased in 2011. The incumbent's market share based on traffic volume has passed from 78.1.7% in December 2009 to 72.6% in December 2010, due to a decrease in international, as well as national calls. The percentage of subscribers using an alternative provider for direct access increased significantly to 25.8% in July 2011, from 20.4% in 2010.

[42] In February 2012 the Competition Protection Office found that the incumbent abused its dominant position to strengthen its significant market power in the mobile market by way of predatory pricing, offering its retail Plan Džabest at unfair sales prices, because the incremental revenue from this price plan was lower than the incremental cost incurred by the incumbent with an average user, which caused the possibility of pushing competitors out of the market.

There have been no significant regulatory developments in the fixed market in 2011. Since the current ex-ante regulation on these markets is based on decisions dating back to 2007 and 2008, new market analysis have been started in 2011 on the access to the public telephone network at a fixed location for residential and non-residential customers, and on fixed transit services.

5.3 Broadcasting

The Slovenian broadcasting services market is characterised by a strong penetration of IPTV. 25.4% of all households had TV connections based on the Internet protocol (DSL or fibre) as of July 2011. This is the highest in the EU and far above the average of 8.1%. The household penetration of cable TV connections decreased slightly to 31.3% in July 2011 (4.7 percentage points less than in July 2010 when it was at 36%), while satellite TV is very low, with a penetration of 3% of households.

Following the digital switchover in December 2010, Slovenia currently operates two national multiplexers with the first DVB-T multiplexer (MUX-A) operated by the public service broadcaster with a coverage over 98%, and a second DVB-T multiplexer (MUX-B) operated by a private broadcast network operator, with a coverage of over 89% of the population. Plans for issuing licences for the rest of the multiplexers have been postponed due to the fact that surrounding countries did not yet conclude the digital switchover and do not allow Slovenian the use of additional GE06 frequencies.

The market for wholesale broadcasting transmission services through digital terrestrial networks is subject to ex-ante regulation, and the NRA is supervising the application of remedies imposed on the SMP operator, following complaints related to a relevant increase of co-location prices. A draft legislative proposal amending the Digital Broadcasting Act in view of the requirements of the Authorisation Directive was not yet approved by the Parliament.

The take-up of bundled packages continued, and in July 2011 14.5% of the Slovenian population availed themselves of such offers (of which 3.2 % are double play and 11% are triple play) with a significant overall increase if compared to 11.7% in July 2010.

31. SPECTRUM MANAGEMENT

The Slovenian frequency strategy is not defined and uncertainty affects decisions on investments.

On the 18 February 2011 the NRA published a public consultation for the preparation of a frequency strategy for the use of spectrum for IMTS/UMTS that was already based on feedback received from operators in 2010, but no results have been published and the strategy has not yet been defined. Operators are very critical about the lack of clarity concerning the priorities and the timing of the future assignment of spectrum, considering that some of the most crucial assignments of frequencies will expire already in 2013. Operators also expressed interest in acquiring additional available frequencies in the 1800 MHz band, but no tendering was planned by the NRA.

High uncertainties are also linked to the tendering of the digital dividend frequencies in the 800 MHz frequency band, since there are coordination and cross-border interference problems with Italy that limit the possibility of assigning those frequencies.

Operators are also testing LTE, but the implementation of this technology might be further delayed in Slovenia at least until 2013, since the frequencies in the 800 MHz band have still to be assigned. Operators affirm that for geographical reasons it would be difficult, and too expensive, to ensure coverage of the Slovenian territory by other frequencies.

The liberalisation in view of the amended GSM Directive rendered the 900 MHz band available for UMTS systems. Consequently, all four UMTS operators are now offering commercial services on the Slovenian market. The fourth operator can only use frequencies in the 2100 MHz band, while the 900 MHz band is fully assigned to the other three operators, which also have spectrum assigned in the 1800 MHz band. In February 2011 the NRA launched a public consultation on the analysis of potential distortion of competition in the 900 MHz band. In September 2011 the NRA published a document, which proposed to assign a UMTS band (2*5 MHz) in the 800 MHz band to the only operator which does not have frequency usage rights in the 900 MHz band, as a solution for the existing distortion of competition in the 900 MHz band. The other UMTS operators did not agree with the proposed measure.

Current licences will mainly expire in 2013 and 2016. The NRA is considering extending the assignment of frequencies in the 900 MHz band which will expire in 2013, for 3 years, to coincide with the expiration date of the assignment of frequencies of the third operator, following which the NRA would then carry out a public tender. The third operator is opposing this solution.

32. CONSUMER INTEREST

7.1 116 - Harmonised numbers for services of social value

Availability of 116 harmonised numbers has improved due to the assignments of the 'helpline for missing children and the 'child helpline'.

The NRA assigned in June 2011 the 'helpline for missing children' (116 000) to the Association of Police Officers of Slovenia (Združenje Policistov Slovenije). The 'child helpline' (116111) was assigned in August 2011 and it is expected that the number will be in use in 2012. During the last public call in June 2011 the NRA did not receive any applications regarding the 'helpline for victims of crime' (116 006) and the 'non emergency medical on-call services' (116 117). The emotional support helpline (116 123) is operational since the beginning of June 2009.

7.2 112 – European Emergency number

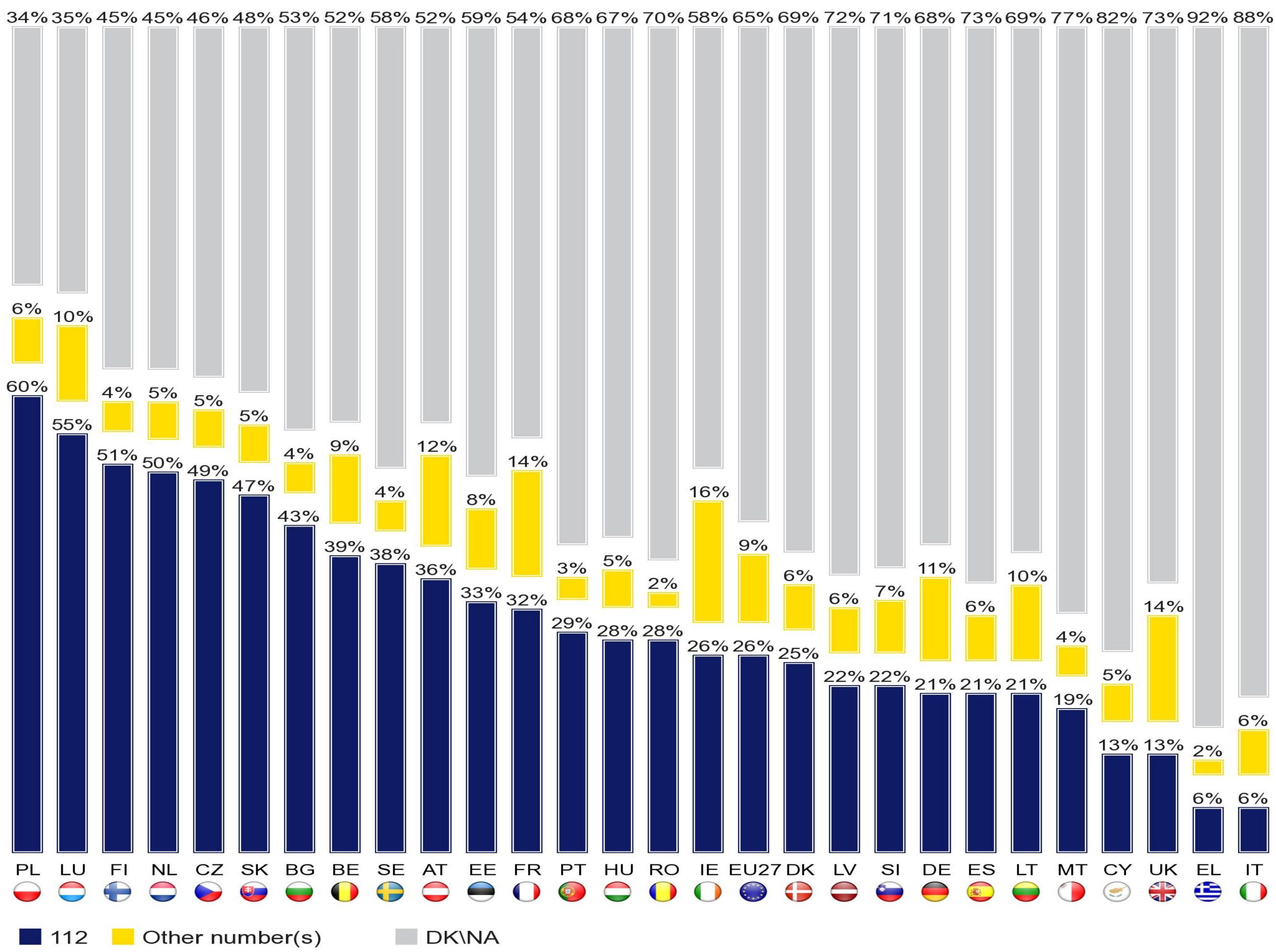
112 is the mainly used emergency number in Slovenia, and SMS text message service to 112 was introduced at the beginning of 2012, however the level of awareness of 112 as the European Emergency Number is lower then the EU average.

In terms of awareness, according to the latest Eurobarometer survey[43] the majority of Slovenians (79%) reported that they would call the emergency number 112 when confronted with an emergency situation in their own country, but only 22% of Slovenians knew that they could reach emergency services from anywhere in the EU by calling the European emergency number 112 (compared to the EU average of 26%).

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

The response time to 112 calls is relatively good in Slovenia, with 95.68% of calls answered within 20 seconds. Fixed and mobile caller location information is provided by a push

43 Eurobarometer Flash survey on the European emergency number 112 (February 2012)

method, and a pull method is also available in case of problems. Location is done according to the coverage area of base stations with a further division into three levels of probability, which gives more precise results than the mere information of the location of the base station. Mobile caller location is provided also in the case of 112 calls made by visiting users of intra-EU roaming services. VoIP operators providing Publicly Available Telephone Services (PATS) are required to ensure that their users can access 112. The Slovenian Public Safety Answering Point has the ability to handle calls in English, and, in certain areas, also in Italian and in Hungarian. A SMS text message service to 112 is operational since the beginning of 2012, and is free of charge. Like WAP112 that was already available, SMS112 is primarily intended for deaf and hard of hearing people.

7.3 Net neutrality & Quality of service

According to the NRA no concerns have been raised in relation to openness of the Internet and inappropriate traffic management practices.

7.4 Consumer complaints, tariff transparency

Main sources of consumer complaints were related to pricing and billing, accordingly NRA is proposing measures to increase tariff transparency.

End user complaints are dealt with in a two phase procedure which is free of charge, where the disputes are first tried to be resolved by mediation. End user complaints are dealt with in a two phase procedure which is free of charge, where the disputes are first tried to be resolved by mediation. The NRA initiated 528 end users dispute resolution procedures: 126 cases were settled in mediation processes, 12 cases have lead to the adoption of a decision in favour of the end users, 53 cases were rejected as unfounded, 79 cases were rejected because they were incomplete or filed too late, while 29 cases were referred by the NRA to other competent authorities. In 2011 the main source for consumer complaints were pricing and billing (63%), mainly regarding GPRS data transmission services, followed by issues related to terms of contracts (16%), availability and quality of service (10%) and in-advertent roaming (2%). The Consumer Protection Authority (Urad za varstvo potrošnikov), a governmental advisory body providing advice and support to consumers on whether, and how, to approach the regulator, the market inspector and the Courts is to be closed and the services provided will be outsourced. The Slovene Consumers Association (Zveza Potrošnikov Slovenije), which is an independent, non-profit non-governmental organization, is tasked with informing consumers on their rights and giving them legal advice. Tariff transparency continued to be an issue and the NRA is proposing to introduce itemised billing according to different networks called by the consumer. The implementation of the redesigned consumer friendly Tariff Transparency Portal (www.komuniciraj.eu) has been delayed and it is supposed to be operational in the first half of 2012.

7.5 Number portability

Porting of fixed and mobile numbers was usually done within three days.

Operators are responsible for porting the numbers within three working days, counted from the date on which the donor operator has received a request for number portability. Slovenia registered an increase in fixed number porting transactions in 2011 (42 066 compared to 44 815 in 2010) and an increase in mobile number porting transactions in 2011 (50 473 compared to 48 139). The average porting time for both fixed and mobile numbers is three days, which is below the EU average, while the wholesale tariff charged to port a number remains at €5 for fixed and mobile numbers.

7.6 Universal service

A supervision procedure is ongoing on problems reported in relation to directory prices.

Since 2009, the NRA has designated the incumbent as the Universal Service provider of both access at a fixed location and public pay phones, whereas another market player (the incumbent's directory arm) has, on the basis of the results of a tender, been designated to provide directory enquiry services and directories (including services for disabled users). While the prices for the Directory were not determined in the tender, the NRA started a supervisory procedure following reported problems with the price level. The next designation is foreseen in 2014.

A Governmental Decree on measures in favour of disabled end users, which was approved in November 2010, has already introduced some requirements aiming to ensure equivalent access, such as the obligation for the Universal Service provider to provide solutions oriented towards the disabled for access to services and directory enquiry services, in order to enable the deaf or hearing impaired end-user to make emergency calls using the sign language, and other forms of non spoken languages, and in order to enable access to the public pay phones and terminals for people in wheel-chairs.

7.6 e-Privacy

No major issues on e-Privacy were reported.

EUROPEAN COMMISSION
Information Society and Media Directorate-General

Electronic Communications Policy
Implementation of Regulatory Framework

18 June 2012

SLOVAKIA

2011

Telecommunication Market and Regulatory Developments

33. SLOVAKIA

1. Main Market and Regulatory Developments: Best Practices and Challenges

Development of the sector

The total revenue of the electronic communications sector went down by 4.8% and was of €2.2 billion in 2010; investment went also down by 4.1% to €291 million. The total investment in the sector as a percentage of revenue was of 13.2% in 2010 (section 3). Competition in the fixed broadband market continues to progress based on different platforms but the take up of Slovak Telekom's wholesale products is still extremely limited. Slovak Telekom market share in the fixed broadband market went down from 42.8% in January 2011 to 41.8% in January 2012, and is slightly above the EU average of 43.3% (section 4).

The mobile market continues to show dynamism, the mobile penetration was 117.2% in October 2011, with retail competition and the latest mobile operator continuing to gain market share. Fixed to mobile substitution remains important: in 2010 almost 75% of the total voice traffic went over mobile networks, well above the EU average of 53.5%. The fixed voice market remains largely in the hands of Slovak Telekom which, despite having lost some market share over the last year, in December 2010 had a market share by traffic volumes of 87.1% in all types of calls. For both fixed and mobile termination prices, the TUSR is working on a LRIC model in line with the Commission Recommendation which should be finalised at the end of 2012 and implemented from 1 June 2013. The switch-off of analogue to digital broadcasting was completed on 31 August 2011. (section 5)

The total amount of ported numbers stayed stable with 113 572 mobile numbers and 80 784 fixed numbers ported. According to the new law, number portability should be made within one day, but further secondary legislation appears to have introduced additional time limits (section 7.5).

Progress in broadband deployment and take up

Broadband penetration grew over the past year but in January 2012, the fixed penetration rate stood at 17.8%, well below the EU average of 27.7% and one of the lowest in the EU. Establishing timely and effective regulation in the relevant wholesale markets is essential. Mobile broadband continues to grow; in January 2012, the mobile penetration rate for dedicated data service cards/keys/modems of 7.1% of population was almost at the level of the EU average of 8.1%. In January 2012, over 15% of lines were provided at speeds of 30 Mbps and above. A national strategy to reach a national broadband coverage of 1 Mbps by 2013 and 30 Mbps by 2020 has been adopted, which will include the financing of network deployment in white areas. (section 4)

Independence and effectiveness of the NRA

The Telekomunikacny urad Slovenskej republiky (the TUSR) is the national regulatory authority in Slovakia. Operators have raised concerns as to the level of administrative charges and fees for rights of use which they consider currently very high; a new measure regarding fees for rights of use is in place since April 2012. As regards the authorisation process, the new Act for Electronic Communications appears to require the establishment of a seat in the territory of Slovakia. (section 2)

Implementation of the framework

Transposition of the revised regulatory framework into Slovak legislation took place with the Act on Electronic Communications 351/2011 of 14 September 2011, which entered into force on 1 November 2011. At the end of 2011, there was no pending infringement in Slovakia.

Spectrum management

The licences for the larger mobile operators were renewed for a period of 10 years. The TUSR launched a public consultation on the future tendering of the 800 MHz, 1800 MHz and 2.6 GHz frequency bands. Under the current Act on Electronic Communications frequencies can be assigned only through a tender competition; the use of the auction procedure is not possible according to this legislation. Frequencies on the digital dividend band were assigned to the provider of digital multiplex until 31 May 2015 but the TUSR agreed with the operator on the early return of these frequencies and its move to the 470-790 MHz band as a compensation. (section 6)

Citizens and consumer protection

Two of the harmonised numbers for services of social value are operational: the hotline for missing children (116000) and the child helpline (116111) (section 7.1). Awareness of 112 as the European Emergency number stands at 47% of the population (section 7.2). Slovakia continues to be at a very early stage in the net neutrality debate; no significant issues or discussions in relation to traffic management have been reported (section 7.3). In 2011, the number of consumer complaints decreased; the most frequent sources of concern were billing and quality of service (section 7.4). The TUSR decided that the cost of the universal service provision for the years 2005-2008 did not constitute an unfair burden and no compensation was granted to the incumbent operator; the TUSR is currently revising the scope of the universal service (section 7.6). With regards to Article 5(3) of the ePrivacy Directive, concerning the storing and accessing of information on users' terminal devices, Slovakia has developed further specifications concerning the exceptions from the consent regime in the new Act on Electronic Communications: the new law allows for temporary recording and storing of messages and the related traffic data if it is necessary for the provision of value-added services ordered by a subscriber or user (section 7.7).

2. NATIONAL REGULATORY AUTHORITIES (NRA)

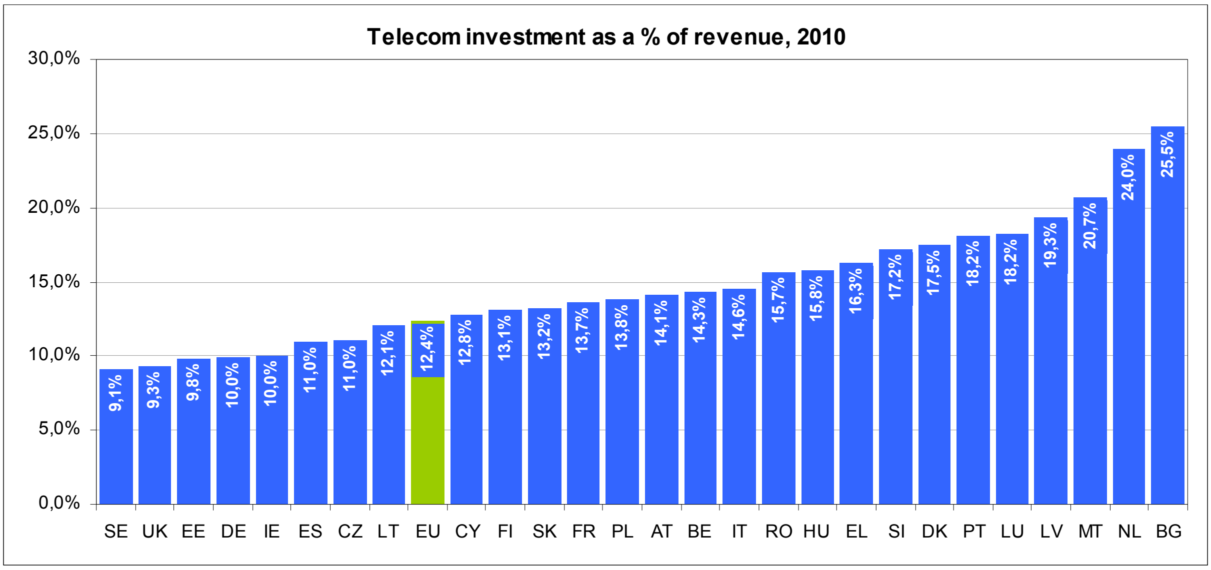
The *Telekomunikacny urad Slovenskej republiky* (the TUSR) is the national regulatory authority in Slovakia. Operators have raised concerns as to the level of administrative charges and fees for rights of use which they consider currently very high; a new measure regarding fees for rights of use is in place since April 2012. As regards the authorisation process, the new Act for Electronic Communications appears to require the establishment of a seat in the territory of Slovakia.

The *Telekomunikacny urad Slovenskej republiky* (the TUSR) is the national regulatory authority in Slovakia. The TUSR currently has 165 employees; TUSR has indicated that additional staff would be needed in the future to fully carry out the new tasks coming from the transposition of the revised framework. In 2011 the TUSR's financing is carried out from a specific subchapter in the budget of the Ministry. Administrative charges are set out by the NRA and apply to all undertakings providing electronic communication networks and/or services on the basis of general authorisation. All payments received are channelled to the state budget. Operators raised concerns as to the level of administrative charges and fees for rights of use which they consider currently very high and not in direct relation to the budget of the NRA. Further transparency as to the amount of charges collected and their link with the budget of the NRA would be beneficial. Improvements can be observed recently as a new measure on charges for providing the right to use frequencies was adopted in April 2012 which introduced a new scale of fees.

As for the authorisation process, the new Act for Electronic Communications which entered into force in November 2011 requires an undertaking wishing to provide electronic communications networks and services in Slovakia to submit a notification to the TUSR prior to the commencement of the activities. However, according to information available at this stage, it appears that in order to fulfil the criteria of notification and thus avoid rejection of the notification, the undertaking must *inter alia* fulfil the requirement of establishing a seat in the territory of Slovakia.

3. REVENUES AND INVESTMENTS

The total revenue of the electronic communications sector went down by 4.8% and was of €2.2 billion in 2010; investment went also down by 4.1% to €291 million. The total investment in the sector as a percentage of revenue was of 13.2% in 2010.



Source : Commission services

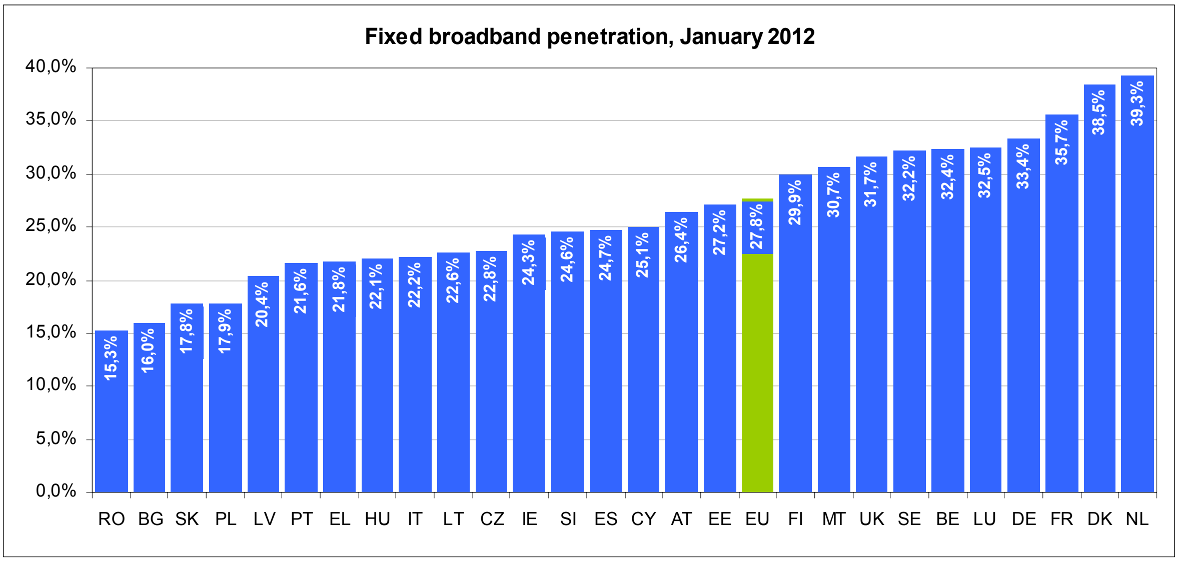
The total revenue of the electronic communications sector for the year 2010 was of €2.2 billion, of which €1.2 billion came from the mobile sector and €598 million from the fixed sector; other revenue coming from Pay TV and other electronic communications services. The total investment in the sector decreased slightly during 2010 by 4.1 % (to €291 million), with a sharp drop by mobile operators (from €133 million in 2009 to €79 million in 2010) and an increase by fixed operators (from €170 million to €212 million). The total investment in the sector as a percentage of revenue was of 13.2% in 2010.

4. BROADBAND

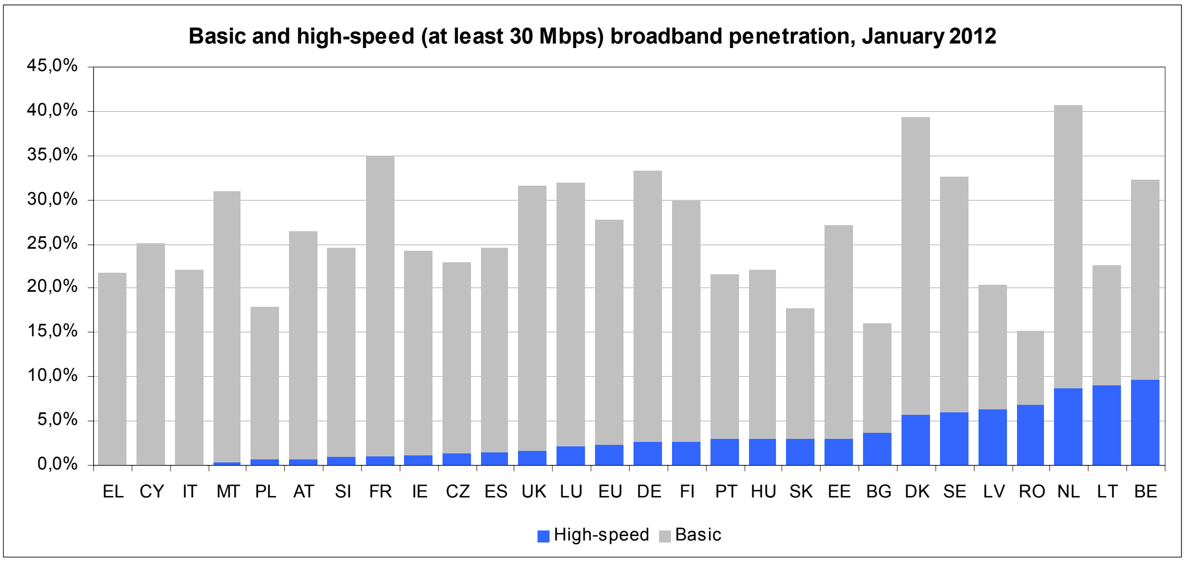
Broadband penetration grew over the past year but in January 2012, the fixed penetration rate stood at 17.8%, well below the EU average of 27.7% and one of the lowest in the EU. Mobile broadband continues to grow; in January 2012, the mobile penetration rate for dedicated data service cards/keys/modems of 7.1% of population was almost at the level of the EU average of 8.1%. Competition in the fixed broadband market continues to progress based on different platforms but the take up of the incumbent's wholesale products is still extremely limited. Establishing timely and effective regulation in the relevant wholesale markets is essential. Slovak Telekom market share in the fixed broadband market went down from 42.8% in January 2011 to 41.8% in January 2012, and is slightly below the EU average of 43.3%. A national strategy to reach a national broadband coverage of 1 Mbps by 2013 and 30 Mbps by 2020 has been adopted, which will include the financing of network deployment in white areas. In January 2012, over 15% of lines were provided at speeds of 30 Mbps and above.

4.1 Market situation and regulatory developments

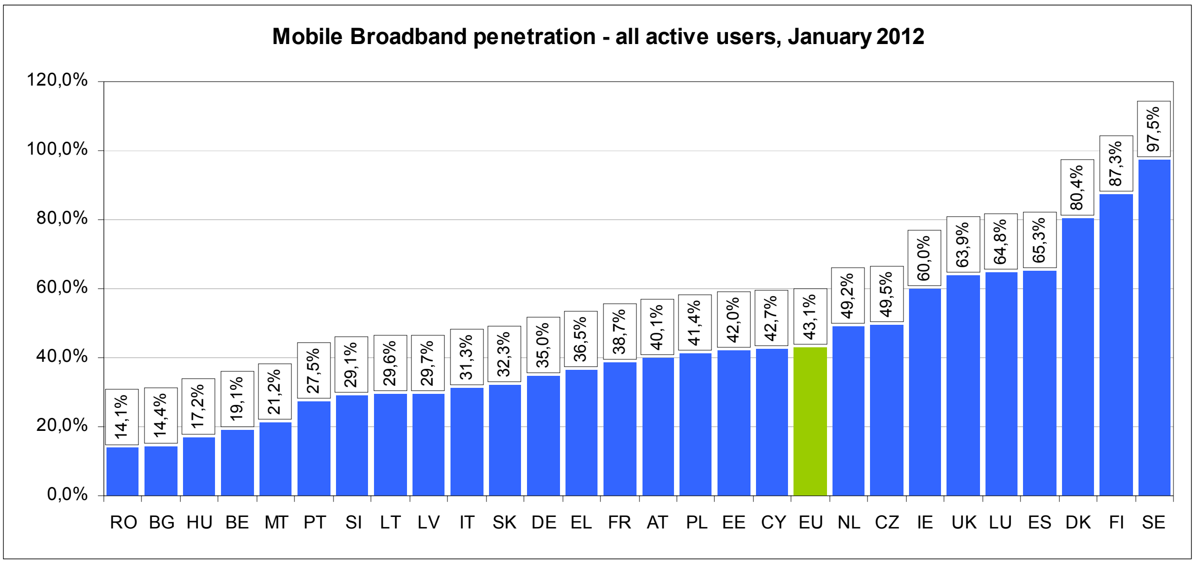
The fixed broadband market experienced certain growth in 2011. The total number of retail fixed broadband lines grew by 73 637 lines over a period of one year. However, in January 2012 the fixed penetration rate of 17.8 % of population remains one of the lowest in the EU and well below the EU average of 27.7%. On the other hand, mobile broadband continued to progress. In January 2012, the mobile penetration rate for dedicated data service cards/keys/modems of 7.1% of population is almost at the level of the EU average of 8.1%. Mobile broadband use, including over smartphones via 3G, was for all active users of 32.3% in January 2012, however below the EU average of 43.1%. Operators indicate that smartphones are becoming increasingly popular. Concerning speeds for fixed broadband lines, a high percentage of them are now delivered at speeds above 2 Mbps and below 10 Mbps (60.3%) and with most of the remaining lines above 10 Mbps (29%). In particular, over 15% of the fixed broadband lines are now provided at 30 Mbps and above.



Source: Communications Committee

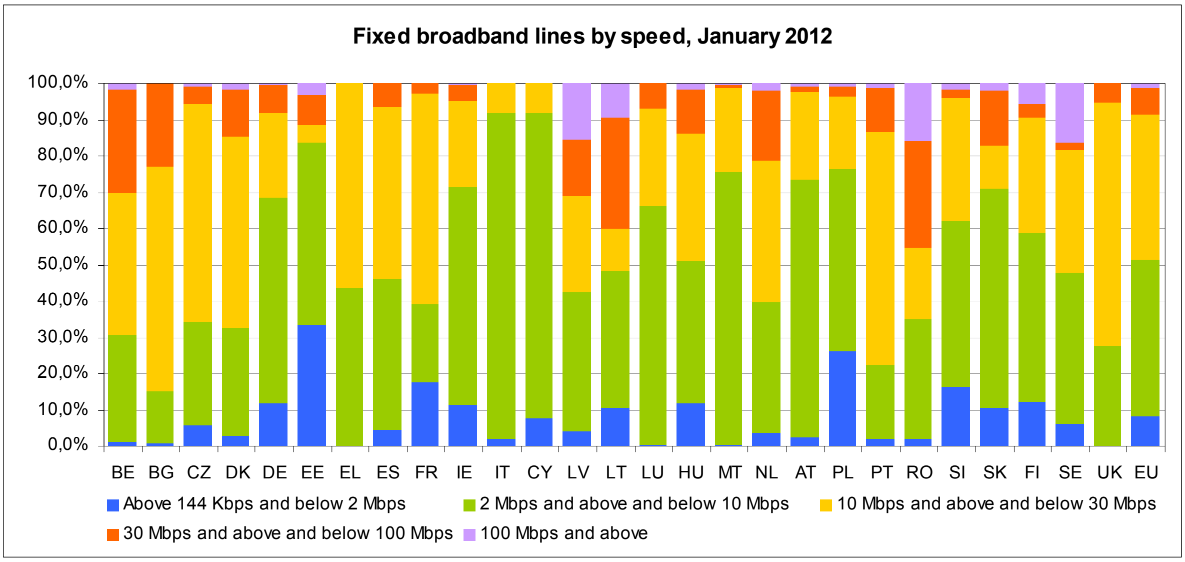


Source: Communications Committee



Source: Communications Committee

Due to the inter-platform competition, the percentage of fixed lines provided over xDSL was of 42% in January 2012, down from 44% in January 2011 and significantly below the EU average of 76%; with cable representing around 12% and other technologies representing therefore around 46% of the total fixed lines. However, nearly all xDSL lines (90.6% in January 2012) are provided by the incumbent, showing little progress in unbundling or bitstream take-up. The new entrants' market share in the fixed broadband market went up from 57.2% in January 2011 to 58.2% in January 2012. The incumbent operator's market share in the fixed broadband market is therefore of 41.8%, slightly below the EU average of 43.3%.



Source: Communications Committee

The TUSR notified to the Commission a draft decision on the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location, including both copper and fibre based access in the market definition. The TUSR proposed to impose on copper based access services a price regulation through a 'benchmarking' methodology, which did not take into account actual costs incurred. These services were thus not intended to be regulated on the basis of cost-orientation. Fibre based access services were not intended to be price regulated at all. The Commission services were in contact with the TUSR with the aim to explain the issues of consistency of the TUSR approach with the EU regulatory framework. The TUSR subsequently decided to withdraw its notification.

Following the withdrawal of the notification, the TUSR ran a public consultation at the national level in January and February 2012 on the revised decision for that market, as well as the draft decision for the wholesale broadband access market.

The price for LLU monthly rental has been reduced for fully unbundled access, standing in October 2011 at €4.2 (below the EU average of €8.62) while it has remained stable for shared access at €2.5 which is higher than the EU average of €1.82. However, the take up of LLU remains extremely low with most xDSL lines by alternative operators provided via bitstream access (99.5% of alternative operators' xDSL lines in January 2012). Competition is therefore mainly based on different platforms and does not rely on the incumbent's access products; the main concerns on the impact and appropriate enforcement of regulation imposed in the broadband related markets therefore remain.

4.2 National plans, private and public investments

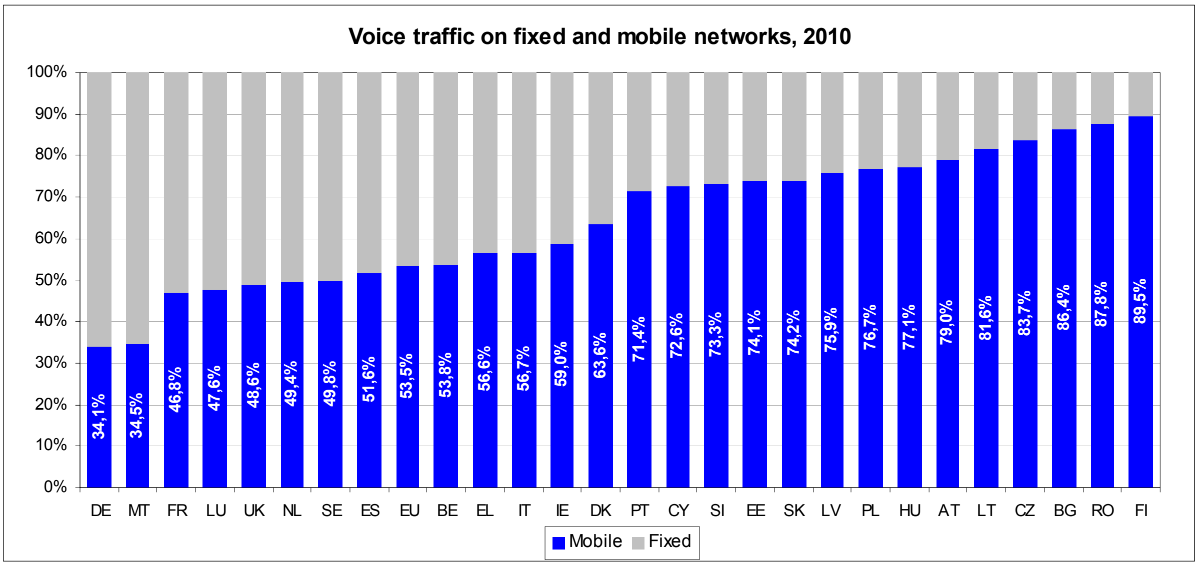
The National Strategy for Broadband Access was finally adopted by the Government in March 2011 (Government Resolution 136/2011). As foreseen, this strategy sets the national broadband target of full coverage by 2013 at 1 Mbps. Nation-wide broadband availability at 30 Mbps by 2020 is set as a longer term target.

Slovakia has launched a national public broadband development programme under the auspices of the Government Office. The aim is to bring access to broadband infrastructure in 'white areas' (i.e. areas with no broadband access) and in the “grey areas (areas where only one broadband network operator is present). For this purpose, the National Agency for Network and Electronic Services, carried out a detailed mapping over the national territory, to identify the areas which may receive support. After that mapping and consultation with the sector, it was concluded that the national programme would cover 729 municipalities representing around 6.6% of the Slovak population living outside the Bratislava region. The programme will consist on a backhaul network which construction will be tendered out, but the network will belong to the National Agency for Network and Electronic Services. The access network will then be built on a commercial basis. Recently European Commission received notification of state aid on the basic broadband deployment in white areas of Slovakia. The overall amount of the measure is €113 million (mostly from EU funds).

5. VOICE AND OTHER E-COMMUNICATION SERVICES

The mobile market continues to show dynamism, the mobile penetration was 117.2% in October 2011, with retail competition and the latest mobile operator continuing to gain market share. Fixed to mobile substitution remains important: in 2010 almost 75% of the total voice traffic went over mobile networks, well above the EU average of 53.5%. The fixed voice market however remains largely in the hands of Slovak Telekom which, despite having lost some market share over the last year, in December 2010 had a market share by traffic volumes of 87.1% in all types of calls. For both fixed and mobile termination prices, the TUSR is working on a LRIC model in line with the Commission Recommendation which should be finalised at the end of 2012 and implemented from 1 June 2013. The switch-off of analogue to digital broadcasting was completed on 31 August 2011.

Voice traffic on fixed and mobile networks, 2010



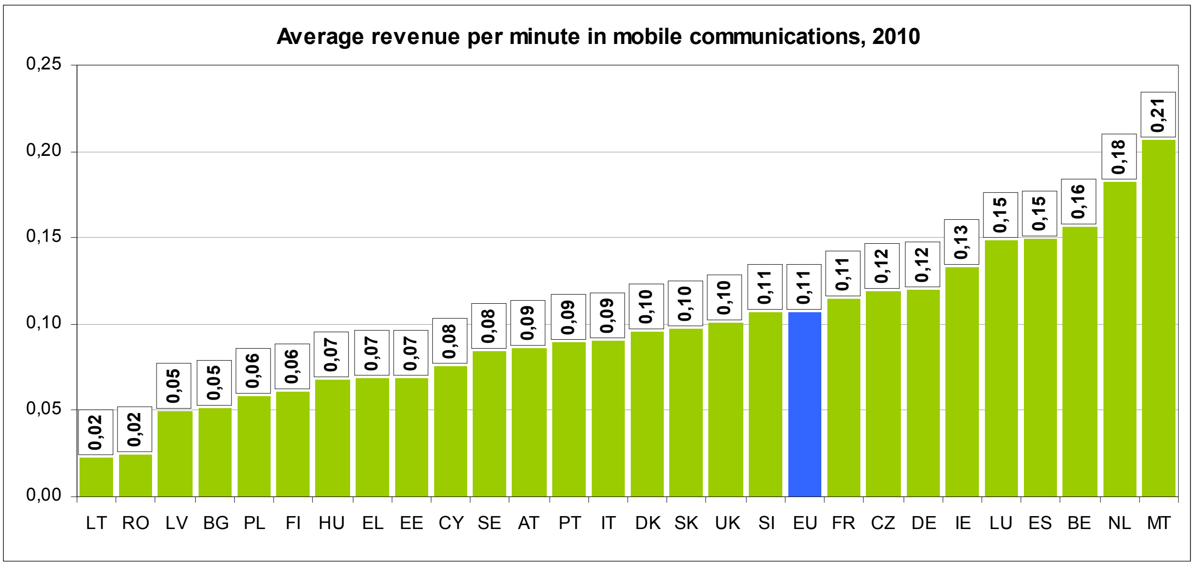
Source: Commission services

5.1 Mobile services

The mobile sector continues to be dynamic. The mobile penetration rate increased to 117.2% of the population in October 2011 but is below the EU average of 127%. The market shares of the leading mobile operator decreased slightly to 45% by subscribers, as well as the market share of the main competitor which went down to 38%. The latest mobile market entrant continued to expand its subscriber base, reaching 17% of market share by subscribers. A few simple resellers offer rebranded products of the mobile operators but MVNOs are not present. Operators have reached full national coverage for 2G and they have indicated that 3G coverage is approximately 70% of the population.

É"

The average price per mobile minute in mobile communications in 2010 was of €0.10, slightly below the EU average of €0.11. The average annual revenue per user has dropped from €234 in 2009 to €195 in 2010, and is below the EU average of €221. The percentage of subscribers opting for post-paid contracts continued to grow and stood at 67% in October 2011.



Source: Commission services

In line with the decision notified by the TUSR in December 2010, which included a proposal for new price caps for mobile termination applicable for the period of 1 February 2011 and 31 January 2012 based on benchmarking[44], the rates are now symmetrical at the level of €0.0551. The TUSR has confirmed that it continues to work on the preparation of a FL LRIC model which will be in line with the Commission Recommendation, and it should be fully implemented as from 1 June 2013.

The authorities continued to report compliance with the Roaming Regulation by all three mobile operators. Besides the eurotariff, there appear to be interesting alternative roaming

44 The price caps are determined on the basis of simple arithmetic average of mobile termination charges in 15 reference Member States applying LRIC which may be other that the recommended one, but which take into account efficiency considerations.

packages, in particular for voice. Operators report an increasing demand in data roaming services.

5.2 Fixed

The fixed voice market continues to show little dynamics; the percentage of the total traffic going over fixed networks (25.8%) is very low, also in relation to the EU average of 46.5%. The share of subscribers using an alternative operator for direct access has increased again during the past year and went up to 14.1% of all subscribers, but it remains low and significantly below the EU average of 30.1%. As in the previous year, all alternative operators use their own proprietary infrastructure. Their impact on the market remains however limited.

Although the market share of the incumbent operator has slightly decreased over the past year, in particular as regards calls to mobile and international calls, its market share by traffic volumes remains very high. In December 2010, for all types of calls the market share of the incumbent operator stood at 87.1%, with a market share of 88.3% for national calls. For international calls and calls to mobile, the market share was slightly lower with 70.6% and 69.3%, respectively. The impact of VoIP operators on the fixed voice market remains still rather low and stood at 8.5% of all fixed call minutes in December 2010, similar to the previous year, and well below the EU average of 23.1%.

The TUSR had notified in 2010 the second review of the wholesale markets for call termination on individual public telephone networks provided at a fixed location in Slovakia. It had designated ten operators as having SMP in their respective markets and imposed a full set of obligations on those operators, including a cost orientation obligation on the incumbent operator and, for the other nine operators, a price control obligation to charge termination rates not exceeding the incumbent's regulated price levels.

The decision by the TUSR setting the exact level of the price caps for local and single transit termination was notified to the Commission in August 2011. The TUSR proposed to set symmetric fixed termination rates using the FL LRAIC bottom up price calculation method. As a result, the notified decision proposed to reduce the interconnection charges for terminating calls in the local level to €0.005 and to €0.0072 for single transit. This decision was appealed, and the second instance decision was adopted on 9 February 2012 upholding the previous price decision.

The TUSR continues to work on a LRIC model corresponding to the methodology provided for in the Commission's Recommendation and expects that it will be ready before the end of 2012 and should be implemented as from 1 June 2013.

Furthermore, the TUSR notified to the Commission in October 2011 the second review of the market for wholesale terminating segments of leased lines and divided the market into two segments according to bandwidth (up to and including 2Mbit/s and over 2 Mbit/s). The TUSR considered that for bandwidth over 2Mbit/s the market was competitive and proposed to withdraw the existing obligations. For the segment up to and including 2Mbit/s it found the incumbent operator with SMP and imposed the full set of obligations, clarifying that it intended to impose a price control obligation based on FAHC for access and develop a LRAIC model for collocation. The Commission called on the TUSR to justify the use of this methodology, given that there was previously no demand for the incumbent's reference offer, already based on a FAHC methodology.

5.3 Broadcasting

The household penetration of satellite TV and cable TV increased during the last year and in July 2011 stood at 45.7% and 33.7%, respectively. IPTV remains less used, generally offered in a bundle, but its take up also increased to 5.9%. The switch-off of analogue broadcasting to digital broadcasting was completed on 31 August 2011. There are currently two multiplex operational (MUX 2 and MUX 3) with coverage of 95% and 97% respectively; the first multiplex (MUX 1) was operating in the frequency band 790-862 MHz and was a "transitional" multiplex since its launching did not require the switch off of any analogue transmitter in view of the commencement of the permanent operation of DVB-T. MUX 1 was assigned until 31 May 2015 but the TUSR agreed with the operator on the early return of these frequencies and its move to the 470-790 MHz band. In October 2011, the TUSR published a call for submitting proposals on a digital tender; based on the results, a digital tender for assigning frequencies for a fourth multiplex (MUX 4) has been announced.

6. SPECTRUM MANAGEMENT

The licences for the larger mobile operators were renewed for a period of 10 years. The TUSR launched a public consultation on the future tendering of the 800 MHz, 1800 MHz and 2.6 GHz frequency bands. Under the current Act on Electronic Communications frequencies can be assigned only through a tender competition; the use of the auction procedure is not possible according to this legislation. Frequencies on the digital dividend band were assigned to the provider of digital multiplex until 31 May 2015 but the TUSR agreed with the operator on the early return of these frequencies and its move to the 470-790 MHz band as a compensation.

Individual licences of the larger mobile operators for the use of 900 MHz, 1800 MHz and 450 MHz (the later valid only for one player) spectrum were due to expire in August 2011 and were renewed for a period of 10 years. This renewal was made in accordance with the previous Act on Electronic Communications 610/2003 and no further extension of rights is possible.

In December 2011 the TUSR launched an extensive public consultation on the future selection procedure for 800 MHz, 1800 MHz and 2.6 GHz frequency bands. Under the currently applicable wording of the Act on Electronic Communications (351/2011) frequencies can be assigned only through a tender competition. The use of the auction procedure is not possible according to this legislation; efforts made so far to amend the current legislation and introduce the possibility to also assign frequencies by auction have failed but there continue to be attempts to modify the Act on Electronic Communications in this respect. Operators have raised concerns in this regard since the auction mechanism would ensure a more transparent process.

As had been mentioned in the past, in the consultation document it is clarified that the digital dividend will be used in the future for the development of mobile broadband services. The provider for digital multiplexes held the licence for this spectrum until 2015. The TUSR held negotiations with the holder which led to the early return of these frequencies. As compensation the TUSR exchanged frequencies from the frequency band 790 – 862 MHz (digital dividend) for other frequencies from the frequency band 470-790 MHz to the holder. The validity of the licence in the new frequency band 470-790 MHz was extended until 2021. The 2.6 GHz frequency band is planned to be used for LTE while maintaining the principle of technological neutrality. Other aspects such as introducing spectrum caps[45] or placing a particular emphasis on white areas are also being considered in the public consultation. It is necessary to ensure that this process is conducted with the necessary transparency and in an efficient manner.

The TUSR has been working towards ensuring the international coordination with neighboring countries. As such, it has concluded agreements with Poland, Austria, Croatia, Hungary and Slovenia on the planning and use of the 800 MHz and 2.6 GHz bands in border areas. In addition, the TUSR agreed principles on the use of the 790-862 MHz band for terrestrial systems in border areas of the Slovak Republic and Ukraine. The principles on the use of the frequency band 2.6 GHz for terrestrial systems in border areas of the Slovak Republic and Ukraine are under finalization.

7. CONSUMER INTEREST

7.1 116- Harmonised numbers for services of social value

Two of the harmonised numbers for services of social value are operational: the hotline for missing children (116000) and the child helpline (116111).

Two of the harmonised numbers for services of social value are operational: the hotline for missing children (116000) and the child helpline (116111). Awareness on the availability of these numbers remains low; according to the last 2011 Eurobarometer survey, only 24 % of the Slovak citizens were aware of the two 116 numbers being provided. In addition, only 22% of the respondents considered that people in Slovakia received adequate information on these numbers.

7.2 112 – European Emergency number

Awareness of 112 as the European Emergency number stands at 47% of the population.

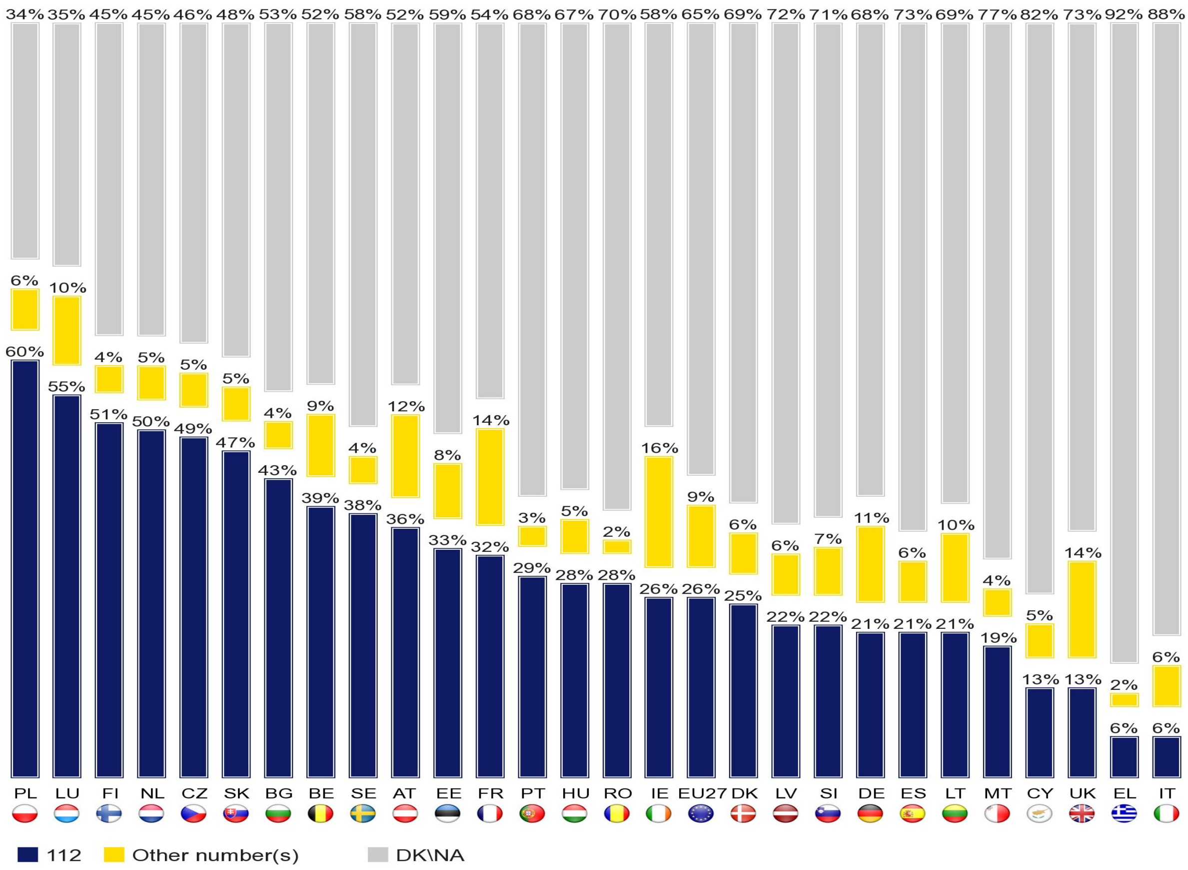
The authorities report that both the Ministry and the operators undertake actions to raise awareness for 112; for example the promotion of the 112 day included campaigns targeting children and the youth. Education on 112 is very important given the high proportion of hoax calls which remains at over 50%, in particular from SIM-less phones. According to the latest special Eurobarometer survey, 47% of the Slovak citizens recognize 112 as the number to call for emergency services from anywhere in the EU. Besides the European Emergency number 112, three other emergency numbers are available at the national level.

[45] Consultations on introducing spectrum caps on the 800 MHZ and 1800 MHZ frequency bands have been launched in March 2012, see **http://www.teleoff.gov.sk/data/files/26311.pdf** and **http://www.teleoff.gov.sk/data/files/26421.pdf**

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

Caller location information is provided via push system, using the database of the incumbent operators for fixed calls. For mobile calls, the cell ID is provided as well as the sector ID. Emergency service centres can handle calls in several languages: the main foreign languages provided are English, French, German, Hungarian, Polish, Russian and Ukrainian, in addition to Czech). Further work has been carried out towards understanding the needs of disabled end-users in accessing emergency services, in particular those who are hearing-impaired. In particular, the incumbent operator provides text-phones for these end-users. The e-call technology is being developed, and the Ministry expects that it will be available as of January 2015.

7.3 Net neutrality & quality of service

Slovakia continues to be at a very early stage in the net neutrality debate; no significant issues or discussions in relation to traffic management have been reported.

Slovakia continues to be at a very early stage in the net neutrality debate; no significant issues or discussions in relation to traffic management have been reported.

7.4 Consumer complaints, tariff transparency

In 2011, the number of consumer complaints decreased; the most frequent sources of concern were billing and quality of service.

In 2011, the number of consumer complaints decreased and TUSR received 177 complaints. The most frequent sources of concern were billing and quality of service.

The NRA continues to monitor quality of service parameters with respect to the provision of universal service obligations, and a project team of NRA continues its work towards specifying quality of service parameters applicable to all electronic communication providers.

7.5 Number portability

The total amount of ported numbers stayed stable with 113 572 mobile numbers and 80 784 fixed numbers ported. According to the new law, number portability should be made within one day, but further secondary legislation appears to have introduced additional time limits.

The total amount of ported numbers stayed stable with 113 572 mobile numbers and 80 784 fixed numbers ported. The wholesale prices for porting numbers were of around €12 for fixed porting and around €3 for mobile. During 2011, it still took 5 working days to port a fixed or mobile number. The Act on Electronic Communications 351/2011 sets the time limit for porting a number in one day as the shortest possible time; the subscriber who has concluded an agreement on number portability to a new undertaking, shall have the number activated within one working day. The secondary legislation laying down details for implementing the procedure of number portability sets further time limits for the portability process. According to the TUSR, the user does not experience a loss of service lasting longer than one working day[46].

7.6 Universal service

TUSR decided that the cost of the universal service provision for the years 2005-2008 did not constitute an unfair burden and no compensation was granted to the incumbent operator; the TUSR is currently revising the scope of the universal service.

The incumbent operator continues to provide the universal service in Slovakia and this, for an undefinite period. The new Act on Electronic Communications 351/2011 gives the national authorities the possibility to re-open the designation procedures and conduct a designation in a non discriminatory manner, taking account of all operators which may have an interest in providing the universal service. Also, the possibility to reassess the scope of the universal service obligations if appropriate is also included in the new Act. The TUSR is examining whether the scope of the universal service should be reassesed. It is currently not planed to include broadband within the scope of the universal service.

[46] Measure of the Telecommunications Regulatory Authority of the Slovak Republic of 31/11/2011 no. O-22/2011.

In January 2011, the TUSR concluded that the cost of universal service provision for the years 2005-2006 as claimed by the designated undertaking did not represent an unfair burden, taking into account the following factors: the market share by revenue and by subscribers, ARPU, and the profits generated. The TUSR carried out the unfair burden assessment on the basis of the costs claimed rather than on the net costs (which have not been calculated). The incumbent operator introduced an internal appeal against this decision. In April 2011, TUSR confirmed its previous decision. Similarly, in June 2011, TUSR decided that the cost of the universal service provision for the years 2007-2008 did not constitute an unfair burden and no compensation was granted to the incumbent operator. After an internal appeal, TUSR confirmed its decision in September 2011. The incumbent operator has introduced an appeal against both final decisions before the Court.

7.7 ePrivacy

With regards to Article 5(3) of the ePrivacy Directive, concerning the storing and accessing of information on users' terminal devices, Slovakia has developed further specifications concerning the exceptions from the consent regime in the new Act on Electronic Communications: the new law allows for temporary recording and storing of messages and the related traffic data if it is necessary for the provision of value-added services ordered by a subscriber or user.

In June 2010 the Slovak Constitutional Court had delivered a ruling on the financing of legal intercept, considering that the fact that operators themselves had to bear the costs of legal intercept was contrary to the law. Accordingly, the new Act on Electronic Communications contains provisions reflecting the Court's findings and indicates that the costs for legal interception shall be borne by the requesting authority.

With regards to Article 5(3) of the ePrivacy Directive, as amended by the Citizens' Rights Directive, concerning the storing and accessing of information on users' terminal devices, Slovakia has developed further specifications concerning the exceptions from the consent regime in the new Act on Electronic Communications. In this respect the new law allows for temporary recording and storing of messages and the related traffic data if it is necessary for the provision of value-added services ordered by a subscriber or user, particularly in order to prove a request to establish, change or withdraw the service or to prove the existence or validity of a legal act entered into by a subscriber, user or undertaking.

EUROPEAN COMMISSION
Information Society and Media Directorate-General

Electronic Communications Policy
Implementation of Regulatory Framework

18 June 2012

UNITED KINGDOM

2011

Telecommunication Market and Regulatory Developments

34.

35. UNITED KINGDOM

Development of the sector

The UK telecommunications sector revenues declined in general between 2009 and 2010 by 7.4% to €51.4 billion whilst the investment in the fixed telecommunications sector increased by 11.4% to reach €2.8 billion in 2010.

The main development in 2011 in voice and other eCommunications services was the completion by Ofcom of the market review regarding mobile termination. Two rounds of consultation were held by Ofcom on new wholesale line rental charges, which took effect on 1 April 2012. The incumbent's market share in the fixed voice telephony continued to decline and remains the lowest market share for an incumbent in the EU.

In addition to the on-going work on changes to consumer switching processes, which resulted in a new consultation in February 2012, Ofcom reduced the time needed to port a number to one day – from the submission of the porting authorisation code in the case of mobile and the completion of all technical requirements in the case of fixed.

Progress in broadband deployment and take-up

The UK fixed and mobile broadband penetration rates are amongst the highest in the EU and kept growing in 2011, especially for mobile broadband. The fixed broadband market is characterised by a relatively small market share for the incumbent and a strong competition based on local loop unbundling (LLU) and cable. During 2011 two rounds of consultation were held on new LLU charges, which took effect on 1 April 2012. There was notable progress in 2011 in investment in superfast broadband and increasing broadband speeds; however, the number of super-fast connections meeting the targets of the Digital Agenda for Europe still remains relatively small in the UK. Also the take-up by alternative operators of the incumbent's regulated next generation access products remained limited in 2011. The tendering process was launched for publicly funded rural broadband projects and public financing was announced also for developing broadband in the cities.

Independence and effectiveness of the NRA

In 2011, Ofcom took over also the regulation of UK's postal services. The requirements of the revised regulatory framework regarding the independence of the NRA were transposed in UK law without altering the existing broad grounds for the dismissal of Ofcom management. In the context of market reviews, Ofcom is now required to carry out national consultations prior to EU consultation. In 2011, Ofcom issued new guidelines on dispute resolution. Discussions continued with stakeholders regarding the reform of the appeals procedure proposed by the Government.

Implementation of the framework

The UK notified full transposition of the revised EU regulatory framework by the deadline of 25 May 2011.

Spectrum management

In the area of spectrum management the main developments in 2011 were the liberalisation of the former GSM bands, preparations for the auction of the 800MHz and 2.6 GHz spectrum and introduction of trading of rights of use for the mobile spectrum.

Citizens and consumer protection

Three 116 numbers are operational in the UK (116000, 116111 and 116123) whilst the selection procedures regarding 116006 and 116117 are yet to be completed. Regarding the European emergency number 112, Ofcom mandated, in 2011, the provision of an emergency SMS service. In the area of net neutrality the main UK ISPs signed up to a voluntary code on traffic management and Ofcom published a report calling for greater efforts regarding transparency in this area. With regards to consumer protection Ofcom prohibited the use of automatically renewable contracts as from 2012 and continued the publication of data on consumer complaints and broadband speeds, including for the first time a research into the performance of mobile Internet. The EU Court of Justice confirmed the position of Ofcom and UK courts regarding universal service obligations in the area of directory enquiries and Ofcom proposed an enhanced relay service for disabled users. Following changes in national law concerning confidentiality of communications, the Commission could close the infringement proceeding opened in 2009 concerning incorrect transposition of the ePrivacy and Data Protection Directives in this area.

2. NATIONAL REGULATORY AUTHORITIES (NRA)

In 2011, Ofcom took over also the regulation of UK's postal services. The requirements of the revised regulatory framework regarding the independence of the NRA were transposed in UK law without altering the existing broad grounds for the dismissal of Ofcom management. In the context of market reviews, Ofcom is now required to carry out national consultations prior to EU consultation. In 2011, Ofcom issued new guidelines on dispute resolution. Discussions continued with stakeholders regarding the reform of the appeals procedure proposed by the Government.

2.1 Independence & organisation

On 1 October 2011, Ofcom officially took over the regulation of UK's postal services from the previous regulator PostComm. In the context of the transposition of the revised regulatory framework the Government's power to issue directions to Ofcom was removed regarding ex-ante market regulation and dispute resolution. The grounds for dismissal of Ofcom chair or non-executive members provided in UK law have not been altered and continue to include also being "*guilty of misbehaviour*" or being "*otherwise incapable of carrying out, or unfit to carry out, the functions of his office*". However, new requirements were set for the Secretary of State to provide and publish reasons in case of dismissal.

2.2. Resources & capacity / administrative charges

The implementation in 2011 of Ofcom's budgetary reduction (28.2% over a four year period until 2014) was overall regarded by industry as a well-managed process. However, certain major projects previously announced for 2011, such as reviews of consumer switching and of non-geographical numbers, did not advance according to the original timetable.

Ofcom now practices more often "calls for inputs" before launching formal consultations especially in carrying out market reviews. As part of the changes related to the transposition of the regulatory framework, Ofcom is now required to complete the national consultation before launching the EU level consultation in relation to proposals of EU significance. This is a welcome development as the Commission was critical of Ofcom's previous practice of holding both consultations in parallel, which often resulted in repeated EU level consultation because of the changes to the draft measure resulting from the national consultation. The provisions of UK law transposing the rules of the revised framework on the periodicity of market reviews apply the three year periodicity rule only to market reviews performed after 25 May 2011, i.e. the transposition deadline.

2.3. Dispute resolution

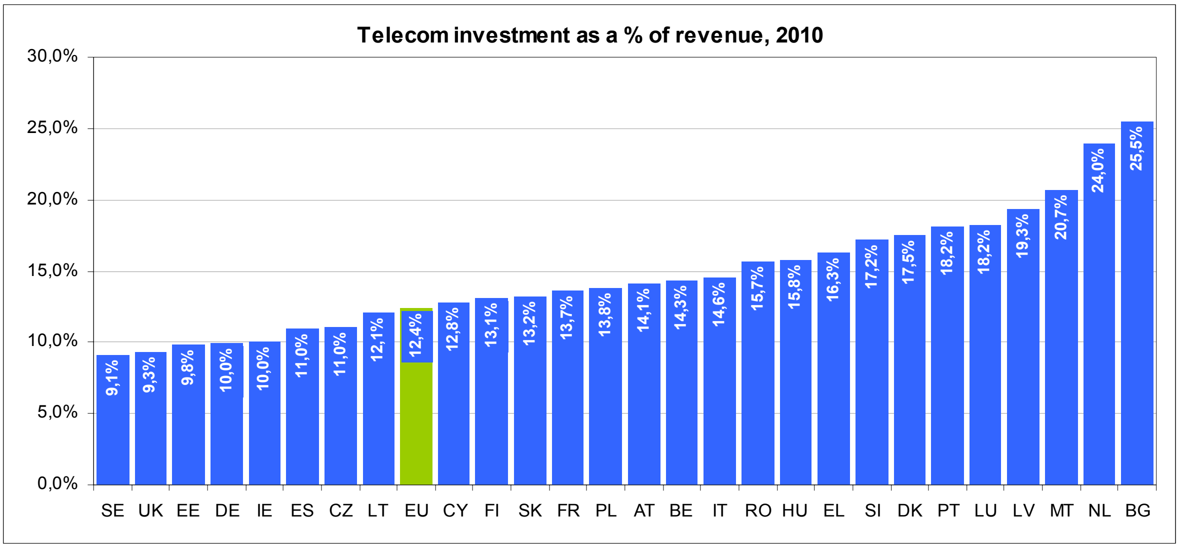
On 7 June 2011, Ofcom issued new dispute resolution guidelines, which notably do away with the issuance of detailed draft determinations for public consultation and provide for involvement of parties at an early stage at senior management level, which should help in finding a solution.

2.4. Appeals

The Government's proposal for the reform of the telecom appeal process was unbundled at the beginning of 2011 from the process of transposing the revised regulatory framework and was subject to separate consultation and further active debate with the industry.

3. REVENUES AND INVESTMENTS

The UK telecommunications sector **revenues** in general declined between 2009 and 2010 by 7.4% to €51.4 billion whilst the **investment** in the fixed telecommunications sector increased by 11.4% to reach €2.8 billion in 2010.



Source: Communications Committee

The total turnover of the UK telecommunications sector amounted to €51.4 billion at the end of 2010, a decline of 7.4% on the previous year. Fixed sector revenues were €24.8 billion

(€25.1 billion in 2009) representing a 1.2% decline, and mobile sector revenues were €13 billion (€16.3 billion in 2009) representing a 20.2% decline.

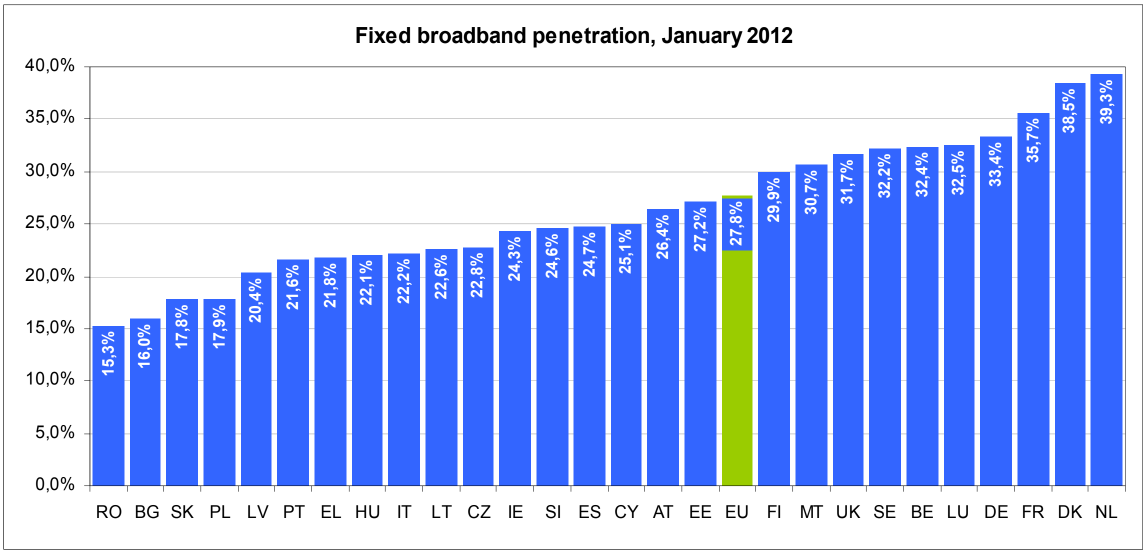
The investment in the fixed telecommunications sector was €2.8 billion or 9.4% of fixed sector revenues at the end of 2010, representing an increase by 11.4% (no data available on mobile investment).

4. BROADBAND

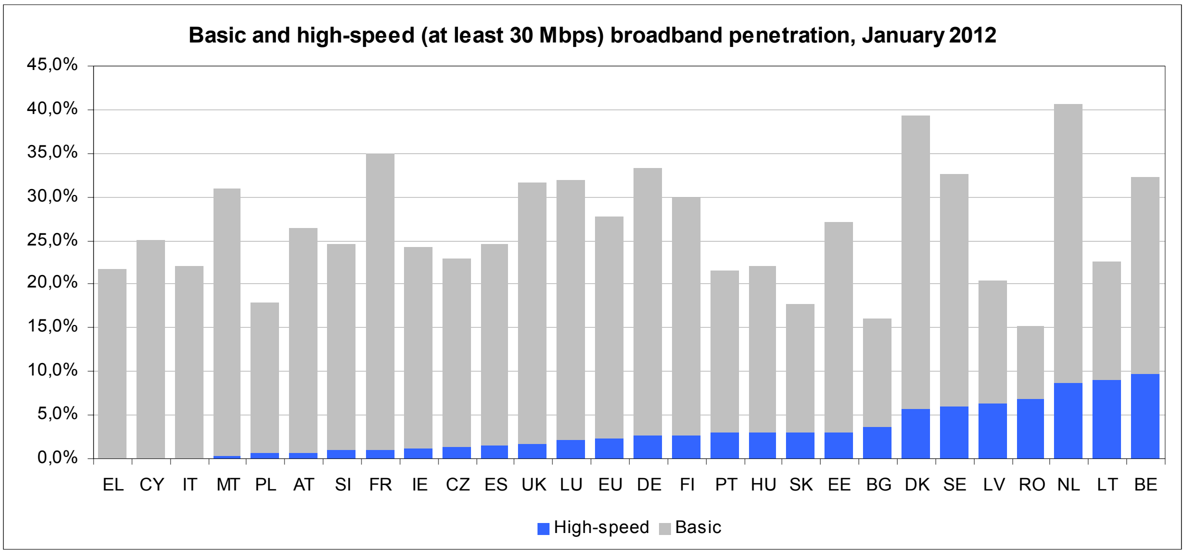
The UK fixed and mobile broadband penetration rates are amongst the highest in the EU and kept growing in 2011, especially for mobile broadband. The fixed broadband market is characterised by a relatively small market share for the incumbent and a strong competition based on local loop unbundling (LLU) and cable. During 2011 two rounds of consultation were held on new LLU charges, which took effect on 1 April 2012. There was notable progress in 2011 in investment in superfast broadband and increasing broadband speeds; however, the number of super-fast connections meeting the targets of the Digital Agenda for Europe still remains relatively small in the UK. Also the take-up by alternative operators of the incumbent's regulated next generation access products remained limited in 2011. The tendering process was launched for publicly funded rural broadband projects and public financing was announced also for developing broadband in the cities.

35.1. 4.1. Market situation & Regulatory developments

The UK fixed broadband penetration continued increasing in 2011 to reach 31.7% in January 2012, which is above the EU average of 27.7%.

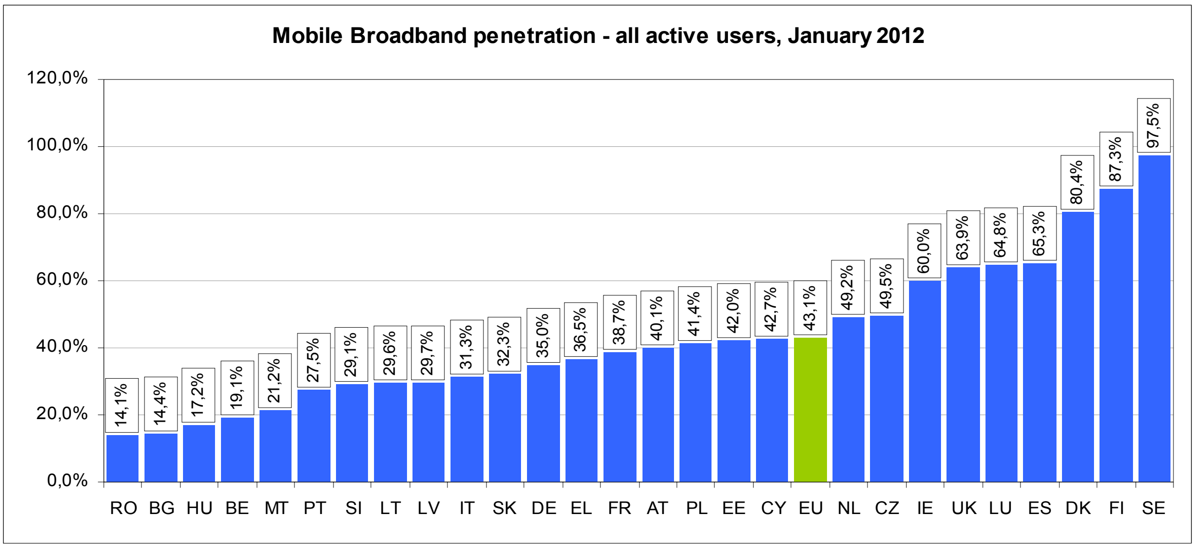


Source: Communications Committee



Source: Communications Committee

The UK mobile broadband penetration increased in the same period to 63.9%, which is also above the EU average of 43.1%.



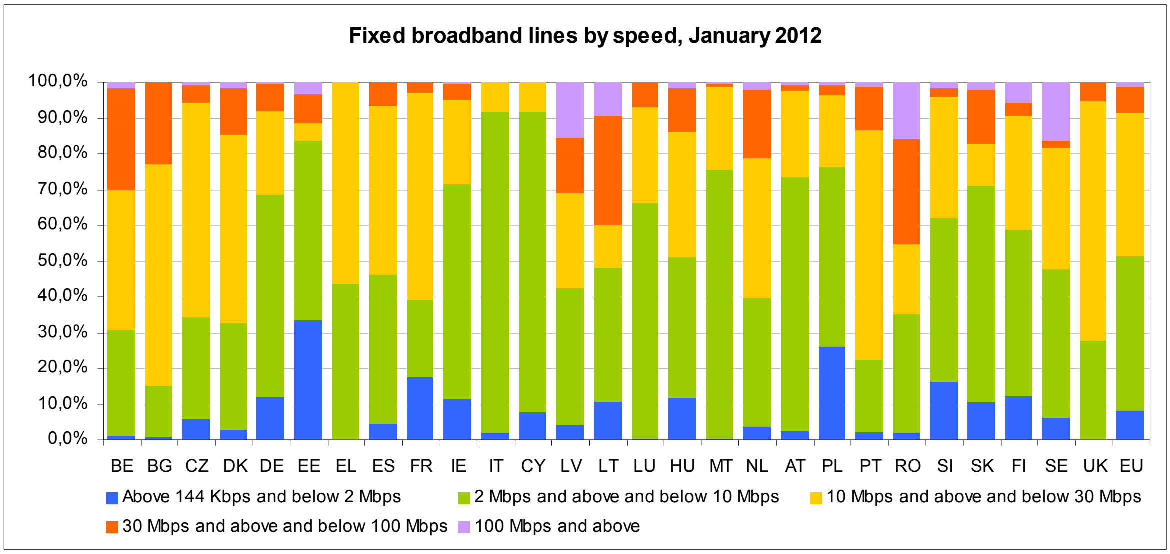
Source: Communications Committee

The fixed incumbent's share of the retail non-corporate broadband market (excluding resale) was 31% in January 2012, which is one of the lowest broadband market shares for an incumbent in the EU and below the EU average of 43%. The incumbent's market share with resale included was 38% in January 2012, which is also below the EU average of 45%.

2011 was characterised by increasing investment in superfast broadband. In particular, the cable operator (which was the first UK operator to offer speeds of 50 Mbps) announced in June 2011 that an 'up to' 100 Mbps service was available to 4 million UK homes and in February 2012 this was available to 10 million homes. The fixed incumbent continued to implemented its GBP 2.5 billion fibre investment programme to bring faster broadband speeds to two-thirds of UK premises by 2014 (approx. 75% by FTTC and 25% with FTTH). In November 2011, the fixed incumbent reported having passed 6 million homes with FTTC. In 2011, the FTTC provided speeds of up to 40 Mbps and an 80 Mbps service has been available since April 2012.

The investment by operators is confirmed by the statistics on broadband speeds. During 2011, the UK operators increased the share of high-speed lines at or above 10 Mbps to 73.1% as of 1 January 2012, which exceeded the EU average of 48.4%. The share of fixed broadband lines offering speeds in the range of 2 to 10 Mbps accordingly decreased to 27.7% in January 2012 and no broadband lines were anymore reported in the low-speed segment (i.e. below 2 Mbps).

At the same time, in terms of the broadband speed targets set by the Digital Agenda for Europe (DAE), UK has one of the smallest shares of lines within the EU at and above 100 Mbps – the penetration of these lines in January 2012 was only 0.02% and below the EU average of 0.4%. Also the penetration of lines at and above 30 Mbps was lower than the EU average - 1.7% in the UK compared to 2.4% in the EU.



Source: Communications Committee

Ofcom's regular research into the performance of residential broadband in the UK shows that UK consumers are achieving greater actual speeds. In November 2011, the average actual UK residential broadband speed according to the research was 7.6 Mbps, compared with 6.2 Mbps in November/December 2010, and 6.8 Mbps in May 2011. This increase was mainly the result of consumers moving onto higher speed packages. The current take-up of residential superfast broadband, which comes at a premium compared to standard offers, nevertheless remains limited and the providers recognise that, in the absence of widely available application requiring superfast broadband, customers are still reluctant to pay a premium for higher speeds.

Further to the broadband market review in 2010, the fixed incumbent presented in 2011 a reference offer for physical infrastructure (duct and pole) access (PIA). The final prices published in October were lower compared to the initial proposal and the final price list also allows more flexibility for access seekers to pick the services they require from the incumbent and mix them with services that they deliver themselves. Whilst some trials of PIA have been begun it is still a very new product on the market and the relevant procedures are yet to be developed.

Ofcom considers that there will be small commercial interest by operators in PIA, the use of which is currently restricted to broadband access, except its possible application in the publicly funded broadband projects in rural areas. It is the Virtual Unbundled Local Access (VULA) remedy, also mandated in 2010, which Ofcom regards as the main basis of competition in superfast broadband networks. Some alternative providers began using it in 2011. However, the take-up of this access product, which is not subject to price control obligations, by alternative operators remained limited in 2011. As regards future regulation of broadband markets, Ofcom indicated that it would keep a close eye on the wavelength unbundling as a potential long-term option to support competition on FTTH GPON.

Local loop unbundling (LLU) in the traditional copper networks continued to progress in 2011 although at a considerably slower pace than in 2010 – the Office of the Telecommunications Adjudicator (OTA2) reported approximately 7.9 million LLU lines at the end of 2011 compared to 7.5 million at the end of 2010 (the number of LLU lines was 6.4 million at the end of 2009). The previous LLU charge controls expired on 31 March 2011 for the period up to 31 March 2012 the charges were set in accordance with a voluntary commitment. During 2011 Ofcom held two consultations on the new charge control and a revised set of controls were introduced from 1 April 2012.

In the market for wholesale broadband access, further to the decision taken in 2010 to impose a charge control remedy in areas where competition is either very limited or non-existent (about 12% of UK households), Ofcom issued a consultation in January 2011 and a statement on 20 July 2011 that required the charge to be reduced by 12% below inflation per year. The charges came into effect in August 2011 and apply until 31 March 2014. This decision was appealed to the Competition Appeal Tribunal (CAT), which referred the price control issues to the Competition Commission for decision in 2012.

As regards facility sharing, the UK took a broad approach when transposing the relevant provision of the amended Framework Directive. The UK transposition law empowers Ofcom to impose facility sharing for the purpose of encouraging efficient investment in infrastructure and promoting innovation, without any limitation to the specific public policy objectives indicated in the revised Framework Directive. However, these new powers have not been applied by Ofcom so far.

In the area of rights of way, in September 2011 the Law Commission initiated a review of the "Electronic Communications Code", the regime that governs the rights of telecommunication providers to maintain infrastructure on public and private land. Further to the consultation in 2010 the Government is keeping under review whether to introduce legislation requiring the shared use of non-telecoms infrastructure for rolling out electronic communications networks. On 29 November 2011 DCMS published a consultation on relaxing the restrictions on the deployment of overhead telecommunications lines. Finally, DCMS published at the end of 2011 an advice note for Local Authorities and communications providers on the use of microtrenching as a deployment technique for superfast broadband and the coordination of street works

As regards the implementation of the anti-piracy measures provided by the Digital Economy Act 2010 (DEA), the High Court ruled on the legality of the DEA on 20 April 2011 finding mainly in favour of the Government except on the issue of imposing additional administrative charges on the ISPs to finance the costs of the notification system of copyright breaches.

Further to this judgment, the Government amended the legal instrument dealing with the allocation of costs between ISPs and copyright holders. The High Court judgment was further appealed to the Court of Appeal, which gave its judgment on 6 March 2012. Because of the pending court proceedings, Ofcom did not yet proceed to issuing the "Initial Obligations Code", which will put in place the notification system for copyright breaches.

35.2. 4.2. National Plans

UK Government's broadband strategy, published on 6 December 2010, aims to make sure the UK has the "best superfast broadband network in Europe by 2015". The aim is to provide superfast broadband to at least 90% of premises in the UK and to provide universal access to standard broadband with a speed of at least 2 Mbps. The Government expects the market to provide superfast broadband to around two thirds of the country and the roll-out to the remaining third is supported by allocating GBP 530 million, which is managed by Broadband Delivery UK (BDUK). The local broadband plans were being submitted to BDUK in 2011 and the tendering process to select the providers has also been launched. At the end of 2011 the Government also announced that it will invest GBP 100 million to create up to ten 'super-connected cities' across the UK. Edinburgh, Belfast, Cardiff and London would all receive support from this fund, and a UK-wide competition would decide up to six further cities that will also receive funding in 2012.

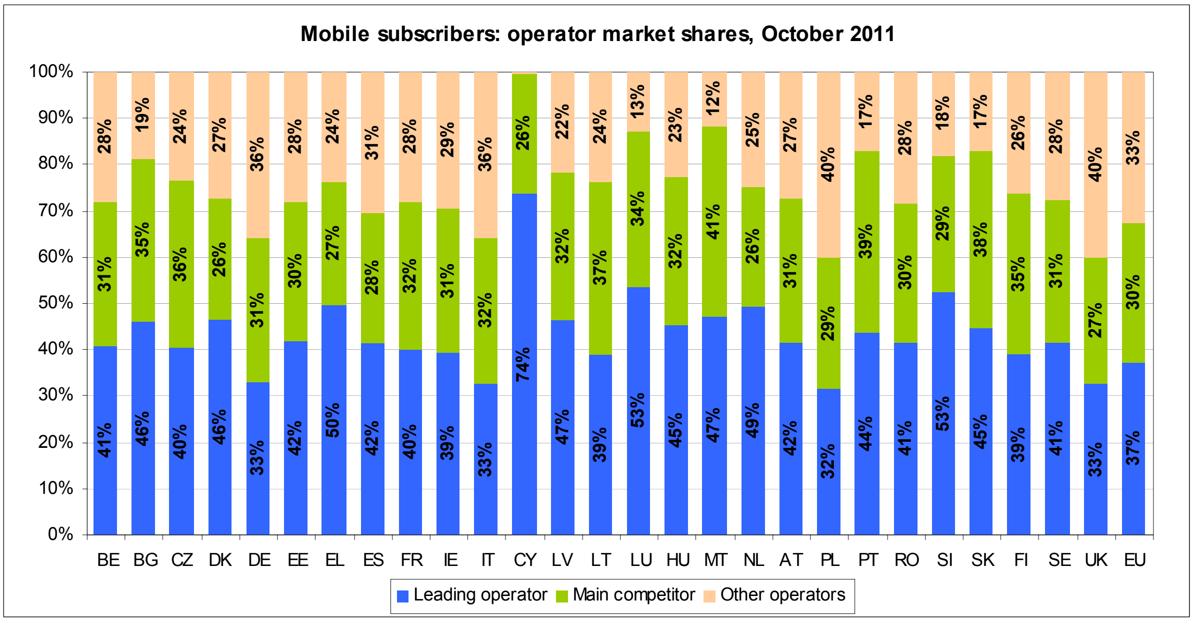
5. VOICE AND OTHER ECOMMUNICATIONS SERVICES

The main development in 2011 in voice and other eCommunications services was the completion by Ofcom of the market review regarding mobile termination. Two rounds of consultation were held by Ofcom on new wholesale line rental charges, which took effect on 1 April 2012. The incumbent's market share in the fixed voice telephony continued to decline and remains the lowest market share for an incumbent in the EU.

35.3. 5.1. Mobile Services

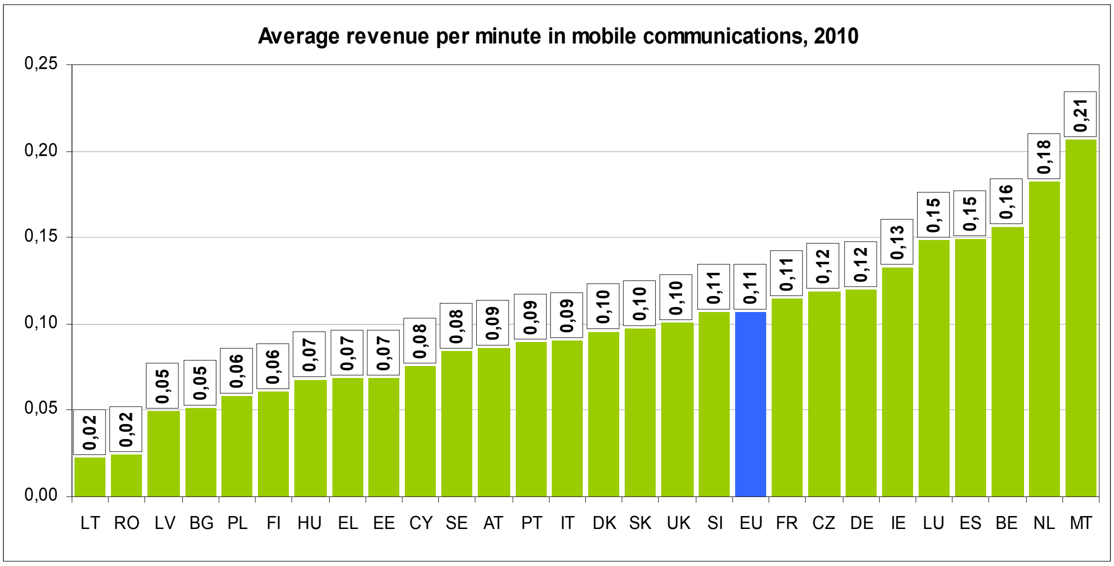
The mobile market was characterised by customers increasingly moving to contract subscriptions – the contract subscribers now account for about 50% of all mobile users. Also SIM-only contracts were becoming increasingly popular. Mobile Virtual Network Operators (MVNOs) continued to be active in dynamic niche markets and there were also numerous resellers of mobile services. Mobile penetration continued to rise in 2011 and reached 136% in October 2011, which was higher than the EU average rate of 127%. In Roaming, different special rates were offered by operators as alternatives to the Eurotariff and were quite popular with the subscribers. In 2011, some UK Mobile Network Operators (MNOs) developed location-based advertising services and announced the creation of a joint venture for mobile payments.

The operators' 3G coverage was expanding in 2011 and the Government also pledged GBP 150 million in support for building mobile masts in the areas currently without coverage. There were some LTE trials in both rural and urban areas. The joint venture of the previous third and fourth largest Mobile Network Operators (MNOs) continued its commercial integration during 2011 with extended possibilities for subscribers to roam between its two networks. It also remained the country's top mobile group with a 33% market share[47] by the number of SIM cards in October 2011.



Source: Communications Committee

The average revenue per minute in mobile voice communication was 0.10€ in December 2010, which was below the EU average of 0.11€.



Source: Communications Committee

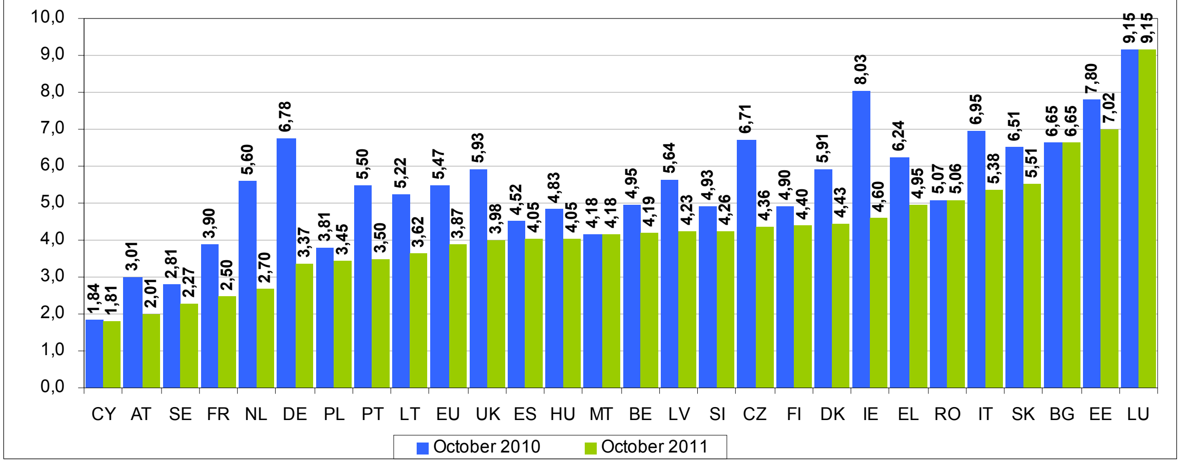
The revenues per subscriber continued to decline – annual average revenue per mobile user dropped to € 246 in December 2010, which nevertheless remained above the EU average, which declined to € 221 in December 2010.

[47] According to data by Screen Digest

On 15 March 2011 Ofcom completed the market review and issued a decision on mobile termination rates (MTRs) for the period from 1 April 2011 until 31 March 2015. The decision applies to each of 32 individual mobile networks which provide voice call termination on UK mobile numbers which that mobile communications provider (MCP) has been assigned and for which the provider is able to set the MTR. All 32 MCPs were designated with significant market power (SMP) and required to provide network access on fair and reasonable terms, including charges.

In addition, Ofcom required the four national networks not to unduly discriminate in relation to the provision of call termination and established caps on their MTRs according to a four-year glidepath, which will reach pure BU-LRIC by 1 April 2014. This was later than the deadline of 1 January 2013 recommended by the Commission. As of October 2011, the average mobile termination rate (MTR) had decreased to 3.98 €- cents, which was slightly above the EU average of 3.87 €-cents.

Interconnection charges for terminating calls on mobile networks (national average on the basis of subscribers), €-cents, October 2010 - October 2011

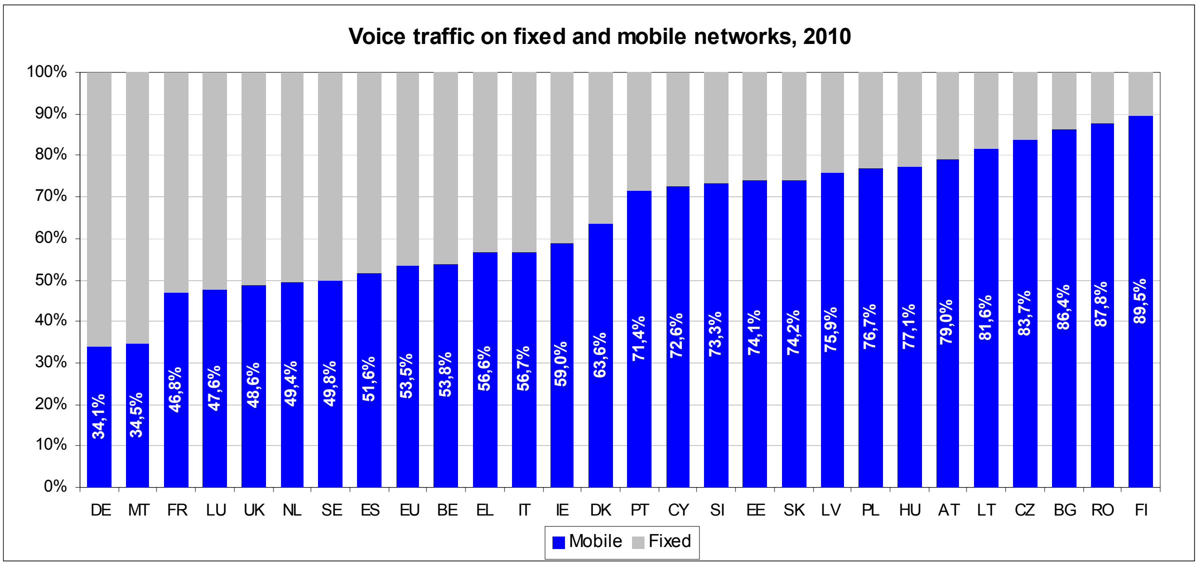


Source: Communications Committee

Ofcom's MTR decision was appealed to the CAT by several operators, which referred the relevant price control questions to the Competition Commission. The Competition Commission in its determination of 9 February 2012 endorsed Ofcom's choice of a pure BU-LRIC methodology and, in addition, required Ofcom to shorten the foreseen glidepath by one year ending at 1 April 2013. Following further proceedings in the CAT, Ofcom published the revised final decision on MTRs on 10 May 2012.

35.4. 5.2. Fixed

The fixed voice market continued to decline in favour of mobile communications - as of December 2010 the voice traffic on mobile networks accounted for 48.6% of all traffic. Notwithstanding this, the UK voice market has one of the largest market shares in the EU for fixed communications.



Source: Communications Committee

The incumbent's market share in the fixed telephony market in December 2010 dropped to 38.7% by the volume of calls, which is the lowest market share for an incumbent in the EU.

According to the statistics of OTA2, the number of Wholesale Line Rental (WLR) lines remained stable in 2011 at 6.3 million whilst Carrier Pre-Selection (CPS) enabled lines continued to decline in 2011 – from 3.1 million at the end of 2010 to 2.6 million. As in the case for LLU charges described earlier, the previous WLR charge controls expired on 31 March 2011 and for a period up to 31 March 2012 the charges were set in accordance with a voluntary commitment. During 2011, Ofcom held two consultations on the new charge control and a revised set of controls were introduced from 1 April 2012 which will run until 31 March 2014. There is currently no equivalent to WLR product in the FTTH networks. Although FTTH is yet in its infancy, the significance of this issue will grow as the roll-out of FTTH increases.

Further to the consultation in 2010, on 27 April 2011 Ofcom published a statement on how alternative fixed communications providers should set fair and reasonable wholesale charges for termination of calls to geographic telephone numbers. According to this statement, Ofcom will presume such rates to be symmetric and it will apply this principle when investigating a dispute. Ofcom also set the retention rates (applicable until September 2013) of the fixed incumbent for originating calls to non-geographic and premium rate service numbers.

Furthermore, on 1 August 2011, the CAT issued a judgment in relation to Ofcom's decision in the dispute between MNOs and the fixed incumbent regarding the charges for terminating non-geographic calls on the incumbent's network. The dispute arose because of the incumbent's request to MNOs to pay the termination charges depending on their retail rate for non-geographic calls. Whilst Ofcom's decision was in favour of the MNOs, the CAT ruled that the fixed incumbent's notices about the variation of termination charges were fair and reasonable. The MNOs have appealed the CAT's decision to the Court of Appeal.

In the area of leased lines, where the current regulation expires in September 2012, Ofcom launched, on 21 April 2011, a new market review cycle by publishing a "call for inputs" to prepare a consultation in 2012.

6. SPECTRUM MANAGEMENT

In the area of spectrum management the main developments in 2011 were the liberalisation of the former GSM bands, preparations for the auction of the 800 MHz and 2.6 GHz spectrum and introduction of trading of rights of use for the mobile spectrum

- **Spectrum strategy**

Further to Government's commitment announced at the end of 2010, DCMS and the Department for Business, Innovation and Skills published plans regarding the release of 500 MHz of additional spectrum below 5 GHz, which is currently in public holdings, over the next 10 years. In December 2011, the Government published a statement identifying 15 bands having the best potential for achieving this 500 MHz target. These include spectrum in the 2.3 GHz-2.4 GHz and 3.4 GHz-3.6 GHz bands, which have been identified for public mobile use and will be released by the Ministry of Defence

- **Refarming**

Following the Government Directions to Ofcom, which Parliament approved in December 2010, on 6 January 2011, Ofcom amended the MNO licences for the 900 / 1800 MHz bands, liberalising their use for UMTS. Some of the operators concerned also started taking advantage of this liberalisation by implementing 3G in the bands concerned.

- **Digital dividend**

The preparation by Ofcom of auctions of 800 MHz and 2.6 GHz spectrum stimulated an active debate throughout the year, in particular around the proposed minimum guaranteed spectrum portfolios. Such a condition was strongly advocated by the two MNOs, which currently do not have access to spectrum below 1 GHz and are therefore worried about the effects on competition resulting from the liberalisation of the 900 MHz spectrum band in the hands of the two MNOs holding this spectrum.

Ofcom issued the first consultation on the auction in March 2011 aiming for the auction to take place at the beginning of 2012. In this consultation it proposed to ensure, by setting spectrum "floors" and "ceilings", that there are at least four holders of a minimum spectrum portfolio to provide high quality data services. In light of response to this consultation Ofcom announced in September 2011 that the auction would need to be postponed to the end of 2012 and, on 12 January 2012, it launched a second consultation.

In this consultation Ofcom confirmed its proposal to reserve spectrum for a fourth national wholesaler. The consultation lists a number of alternative spectrum portfolios, which include the 800 MHz and 2.6 GHz and also the 2x15 MHz of 1800 MHz spectrum to be divested by the mobile joint venture pursuant to the merger commitments of its parent companies. This spectrum at 1800 MHz will be sold in the auction if it is not traded before the auction. In comparison to the first consultation, some of the revised minimum spectrum portfolios contain no 800 MHz spectrum.

The 800 MHz and 2.6 GHz band in question will only be available for use nationwide by the end of 2013, when the 800MHz band is cleared of broadcasting and other users and the 2.6 GHz is cleared of interference from civil and military radars.

- **Spectrum trading**

In accordance with the Government Directions, on 16 June Ofcom adopted spectrum trading regulations to make 900 MHz, 1800 MHz and 2.1 GHz public wireless network licences tradable. Ofcom will be responsible for the administration of the spectrum trades, will assess their impact on competition and, in case of approval, will issue revised licenses to implement the trades.

- **MSS**

In the area of mobile satellite services (MSS), further to the granting of rights of use to the respective providers in 2010, Ofcom carried out a consultation in 2011 on exempting the 2GHz MSS user terminals from licensing requirements.

7. THE CONSUMER INTEREST

35.5. 7.1. 116 - Harmonised numbers for services of social value

Three 116 numbers are operational in the UK (116000, 116111 and 116123) whilst the selection procedures regarding 116006 and 116117 are yet to be completed.

The 116000 'Hotline for missing children', 116111 'Child helpline' and 116123 'Emotional support helpline' are operational in the UK as 'free to caller' numbers. Yet, only the provider of 116123 advertises this number on its own website. Apart from this, there was no publicity given to these numbers by either the relevant UK authorities or the service providers in 2011. The selection procedure regarding 116006 'Helpline for victims of crime' and 116117 'Non-emergency medical on-call service' was launched in 2010 but was not completed in 2011.

35.6. 7.2. 112 – European emergency number

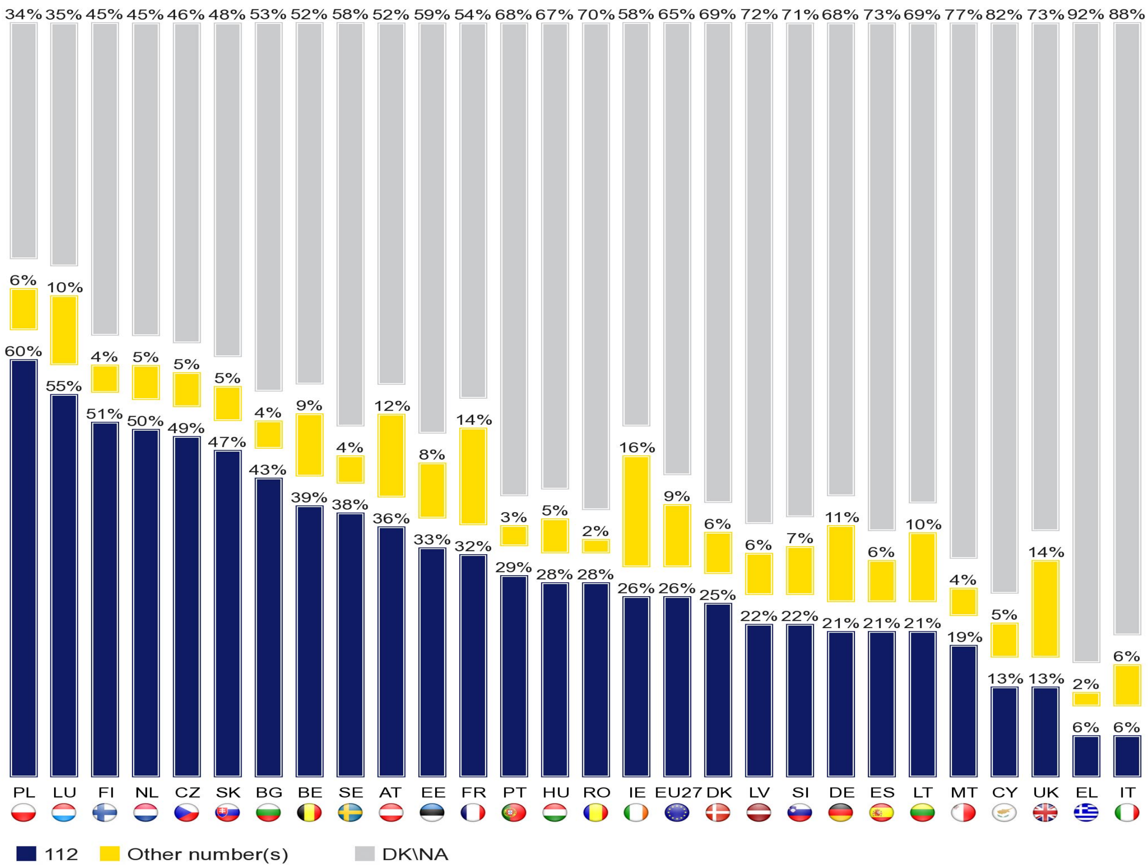
Regarding the European emergency number 112, Ofcom mandated, in 2011, the provision of an emergency SMS service.

The latest February 2012 Eurobarometer Flash survey indicated an increase in the knowledge among UK citizens of 112 as EU-wide emergency number (13%, +5 percentage points compared to 2011). Notwithstanding this, the percentage of respondents in the UK who knew that they could call emergency services across the EU by using 112 remained the third lowest within the EU. On the regulatory side, in the context of the amendments made on 25 May to the General Conditions to transpose the revised regulatory framework, Ofcom mandated the provision of an emergency SMS service on both 112 and the national emergency number 999.

Awareness of 112 as the EU-wide emergency number:

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

(Base: all respondents, % by country)



Source : Eurobarometer 2012

35.7. 7.3. Net neutrality & quality of service

In the area of net neutrality the main UK ISPs signed up to a voluntary code on traffic management and Ofcom published a report calling for greater efforts on transparency in this area.

In 2011, the main UK ISPs signed up to a voluntary code committing to provide better and more easily comparable information to consumers about traffic management. They undertook to publish a common Key Facts Indicator (KFI) table, summarising the traffic management policy for each package on offer. As regards specifically the use of mobile VoIP, the UK mobile operators have adopted different approaches – whilst some do not apply formal restrictions on VoIP, others allow it only in premium packages.

On 24 November 2011, Ofcom published a report on net neutrality. In this report Ofcom stresses the need for transparency and invites the ISPs to take further steps, in addition to the publication of KFI, for increased transparency and pledged to keep under review the possibility of intervening more formally. Ofcom also stated that it regards any blocking of alternative services by providers of internet access as highly undesirable. The operation of market forces should address the issues of blocking and discrimination, but Ofcom will keep this position under review. The next update on this work was announced for summer 2012.

35.8. 7.4. Consumer complaints, tariff transparency

With regards to consumer protection Ofcom prohibited the use of automatically renewable contracts as from 2012 and continued the publication of data on consumer complaints and broadband speeds, including for the first time a research into the performance of mobile Internet.

The new rules concerning user complaints requiring providers to better inform their customers about dispute resolution entered into force on 22 July 2012. Ofcom continued the practice of publishing the complaints data about telecoms providers. In addition to its regular research and publication twice yearly of data on fixed broadband speeds, in 2011 Ofcom also published its first research into the performance of mobile broadband.

In September 2011, the UK advertising bodies published guidance on the use of speed claims in broadband advertising, which will come into force in April 2012. In September 2011, Ofcom banned, as from January 2012, "rollover" contracts (automatically renewable contracts - ARC) that had become quite prevalent in the fixed sector. Ofcom also continued its enforcement activity, with priority programmes to tackle fixed line mis-selling and silent calls, issuing a significant number of breach notifications and fining one company in excess of GBP 3 million. Ofcom also carried out a review of issues that cause unexpectedly high bills ('bill shock') and set out an action plan to tackle them.

There were no formal steps taken in 2011 regarding the review of non-geographic numbers, which Ofcom initiated in 2010.

35.9. 7.5. Number portability

In addition to the on-going work on changes to consumer switching processes, which resulted in a new consultation in February 2012, Ofcom reduced the time needed to port a number to one day – from the submission of the porting authorisation code in the case of mobile and the completion of all technical requirements in the case of fixed.

During 2011 Ofcom worked with industry and other stakeholders to identify options for change to switching processes. A consultation on these options was published in February 2012. The rules adopted by Ofcom in 2010 regarding the porting of mobile numbers took effect on 11 April 2011 providing that users are able to transfer their number to a new provider in one working day. They also require the porting authorisation code (PAC) to be issued either immediately over the phone or within a maximum of two hours by text message.

As regards porting on fixed networks the General Conditions as amended on 25 May provide that the porting and subsequent activation is to be completed within one business day once all necessary validation processes and technical requirements have been completed.

There are neither wholesale nor retail non-conveyance charges in mobile number porting and there are no retail non-conveyance charges in fixed number porting. The wholesale non-conveyance charges for fixed number porting vary significantly depending on the type, size, timing and complexity of the port order and range. The maximum wholesale porting charge is £22 (approx. €26) whilst a typical charge for a standard single line port is £0.49 (approx. €0.58).

35.10.7.6. Universal service

The EU Court of Justice confirmed the position of Ofcom and UK courts regarding universal service obligations in the area of directory enquiries and Ofcom proposed an enhanced relay service for disabled users.

On 17 February 2011 the EU Court of Justice delivered its judgment following a reference from the UK Court of Appeal concerning Universal Service (US) obligations in the area of directory enquiry (DQ) services. The Court of Justice (agreeing with the preliminary finding of the UK Court of Appeal, which confirmed Ofcom's position) held that the Universal Service Directive only allows the imposition of specific US obligations on designated providers that are associated with the provision of US to end-users by the designated undertakings themselves (i.e. the Universal Service Directive only permits retail level obligations and does not permit wholesale level obligations to be imposed by way of US obligations).

On 28 July 2011 Ofcom published a consultation on relay services for disabled end-users. Ofcom proposed to upgrade the existing text relay service and consulted on options for the introduction of a video relay service. Ofcom proposed that improved text relay service obligations be placed on all fixed and mobile communications providers by way of General Conditions, with the current universal service obligation being withdrawn.

35.11.7.7. ePrivacy

Following changes in national law concerning confidentiality of communications, the Commission could close the infringement proceeding opened in 2009 concerning incorrect transposition of the ePrivacy and Data Protection Directives in this area.

On 26 January 2012 the Commission closed the infringement proceeding, which it launched in 2009 concerning the incorrect transposition into UK law of the EU law requirements concerning the confidentiality of communications, as provided in the ePrivacy Directive 2002/58/EC and the Data Protection Directive 95/46/EC. This was possible after UK amended its national legislation so as to fully prohibit interception of users' electronic communications without their consent, and established an additional sanction against unlawful interception, which is administered by the Interception of Communications Commissioner (ICC).

The UK personal data protection authority, the Information Commissioner gave the industry a lead-in period of one year from the date of implementation of the revised regulatory framework to work towards compliance with reinforced obligations regarding Internet cookies and published two sets of guidance to aid industry with implementing the new requirements.