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**EUROPEAN ELECTRONIC COMMUNICATIONS REGULATION AND MARKETS  
2006 (12th REPORT)**

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**ANNEX 2: MARKET OVERVIEW (see volume 2)**

## **INTRODUCTION**

This Commission Staff Working Document accompanies the Commission's Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on European Electronic Communications Regulation and Markets 2006 (12<sup>th</sup> Report).

It provides a detailed analysis of electronic communications services markets, the regulatory environment and the consumer interest, together with the customary overview of the situation of the sector in the individual Member States ('country chapters') and the detailed market data on which the Communication is based.

The regulatory situation described here is that at 31 December 2006. Market data, unless otherwise indicated, cover the period up to 1 October 2006.

# MARKET AND ECONOMIC DEVELOPMENTS

## MAIN MARKET DEVELOPMENTS

The e-communications services sector continues to represent the largest segment of the overall ICT sector, accounting for around 44.5% around the same as the previous year.<sup>1</sup> In 2006, the sector was worth approximately €649 billion of which €289 billion was fixed telephony, mobile telephony and fixed/data services. Overall revenue growth was approximately 2.3%<sup>2</sup>, i.e. lower than the revenue growth rate for 2005 (between 3.8% and 4.7%); traffic volumes increased in all segments.

### *Mobile*

Revenue from mobile services grew at 4.6%, though at a slower pace than last year. While take-up and usage of mobile phones continued to increase, the mobile voice market is showing clear signs of maturing. Prices have continued to fall as a result of intensifying competition although there is scope for more progress in some areas. Mobile penetration has now exceeded 100 per cent and stands at 103% when compared to 95% penetration last year. There are now 478.4 million mobile subscribers in the EU. There are signs that 3G take-up is increasing. There continues to be downward pressure on mobile termination rates through regulatory intervention in most Member States.

Average retail prices for calls made while roaming continue to be significantly higher than the equivalent prices for domestic mobile calls despite initiatives to increase transparency of tariffs, including the launch of a consumer website by the Commission.

### *Fixed voice*

Fixed voice telephony has continued to decline but still remains the most important source of revenue to players in the fixed market. Intensifying competition leading to falling prices and substitution by mobile services (and to a lesser degree by VoIP) are the primary factors. The decrease in revenues from fixed is estimated at between 4.5% and 5.1%.

### *Broadband*

Broadband is the fastest growing segment, with growth in revenue estimated at between 7.8% and 8.5%. EU countries are world leaders and there are now six Member States with penetration rates exceeding the 20% mark. More than 20 million fixed broadband lines were taken up in 2006, representing an increase of 39% on the previous year. Increasing revenues from broadband services are helping to offset the decline in revenues from traditional fixed services. Consumers continue to benefit from lower prices, higher speeds and a variety of broadband offers due to increasing competition in the broadband market. New bundled offerings are fuelling consumer demand for broadband services.

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<sup>1</sup> EITO 2006

<sup>2</sup> IDATE 2006, EITO 2006

Effective regulation has contributed substantially to broadband rollout in many Member States. Whilst it is true that growth in broadband resale arrangements was particularly pronounced in 2006 (up by 124%), alternative providers continued to climb the ladder of investment with more than 4.1 million new fully unbundled local loops (up by 79%), investing several billion euros into new infrastructure in the process.

## **KEY HORIZONTAL THEMES**

Overall the electronic communications sector is continuously adapting to changing technologies and market developments. Most operators are gradually upgrading existing infrastructures and deploying new networks in order to enable higher data speeds and delivery of converged products. The divisions between the previously well-defined markets within the electronic communications sector are continuing to blur.

Convergence has a wide range of implications that affect how the different networks are rolled out and packages of services are offered to end-users. Converged devices are enabling new communication behaviours, while content is assuming a growing importance. Convergence of platforms and services, together with the development of new technologies, constitutes an important challenge for stakeholders and regulators.

Operators are investing in Next Generation Networks (NGN), which should allow more efficient provision of multiple services over the same infrastructure. This movement is especially important for incumbent operators, who have inherited a variety of networks dedicated to the provision of different services, and it represents an important challenge for stakeholders and regulators. Interconnection between NGNs and between NGNs and traditional networks is likely to be extremely important in order to maintain connectivity.

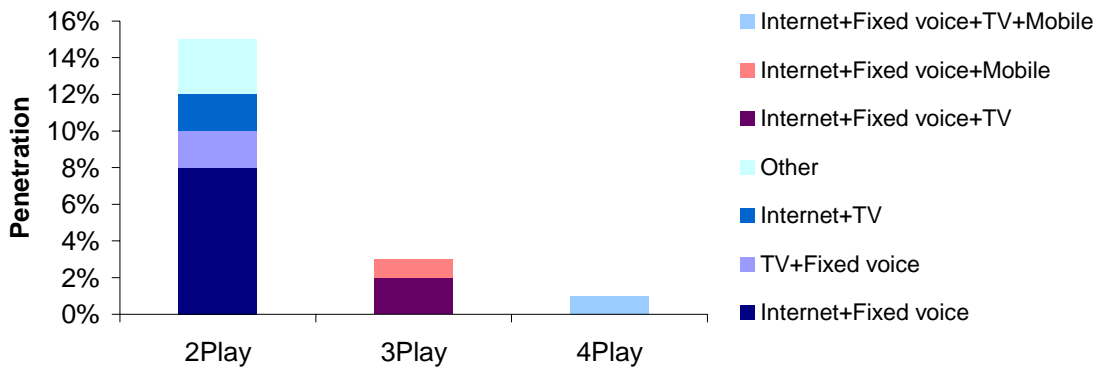
Mergers and acquisitions in 2006 continued to achieve scale and created the conditions for further pan-European consolidation. In addition, strategic partnerships were signed with content providers, as content is becoming a more important factor with the development of new services such as IPTV, mobile TV or DTT in allowing market players to differentiate offers.

There is a trend towards bundled products, where operators offer a variety of services for a single overall price, provided through different platforms for the benefit of consumers. An EU survey<sup>3</sup> on the evolution of communication services in European households showed that 19% of EU households subscribed to at least one bundled service with higher percentages in some Member States (Denmark: 38%, Estonia: 35%, the Netherlands: 32%, Spain: 29% and Luxembourg: 27%). The most frequently purchased service package is a double play offer of fixed voice telephony and Internet access (8% of EU households). Triple play and quadruple play offers have been taken up by only 3% and 1% of EU households respectively.

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<sup>3</sup> E-Communications Household Survey (March 2007). Special Eurobarometer, European Commission.

### EU Household Penetration of Bundled Offers



This survey also found that the majority of residential internet access is now based on broadband, with an EU average proportion of 32% of households, against 12% of households with narrowband access (compared to 23% and 16% respectively almost one year earlier<sup>4</sup>). In recent years, the growing number of services requiring high data rates has prompted subscribers to shift from narrowband to higher speed offers and increasingly to demand symmetric connections.

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<sup>4</sup> E-Communications Household Survey (July 2006). Special Eurobarometer, European Commission (EU25).



## FINANCIAL AND ECONOMIC OVERVIEW OF THE SECTOR

This section provides an overview of the current economic and financial state of the electronic communications sector. It will look at price developments for the consumer, at investment as the source of dynamic gains in the future and at the financial health of the industry as reflected by the financial markets.<sup>5</sup>

One of the principal advantages that liberalisation and ensuing competition have created for consumers is lower prices for existing communications services. The benefits flowing from this constitute one of the most important parameters against which the functioning of EU regulatory policy should be judged; and they are highlighted throughout this implementation report. On this score, it is no surprise that the data show that in 2006 consumers continued to benefit from deflationary price developments for most standard communications services.

As illustrated in annex 2 of this report, the OECD baskets measuring prices in mobile services for typical consumption patterns show price decreases of up to 13.9% between 2005 and 2006 across EU-25. Similarly, in the UK, quarterly consumption of mobile voice minutes went up from 16.4 billion in mid-2005 to 18.3 billion minutes in mid-2006, whereas over the same period industry revenues for the provision of these services increased only from €3.76 to €3.95 billion – indicating that prices for the consumer actually fell by 5.7%.<sup>6</sup> Finally, in Germany, the price index for all electronic communications services fell by 3% in 2006, with specific decreases in prices for standard internet usage amounting to 5.1% and for fixed voice calls amounting to 0.2%.<sup>7</sup>

Clearly, the evidence assembled in this report and these examples show that the average European consumer of electronic communications services in 2006 was better off than the year before, and that the static gains in consumer welfare resulting from falling prices are a strong indication that the regulatory framework is functioning well overall.

Positive price developments were underpinned in the past year by increased investment in the electronic communications sector. Investment is a necessary condition for both consumer gains from innovation over time and the ability of operators to provide consistent levels of quality of service. In 2006, aggregate investment in the electronic communications sector – measured in terms of capital expenditure – is estimated to have risen to more than €47 billion, representing an increase of 5% over 2005. It was the fourth consecutive year of increased year-on-year investment levels since 2003. The steady nature of this overall increase points to a continuation of the current investment cycle and a broadly favourable structural environment.

Disaggregating this figure, it can be seen that the typical incumbent firm in the fixed sector invested approximately 13.3% of its revenues, whereas the typical incumbent firm in the mobile sector invested approximately 12.7%. Both of these percentages are slightly below the levels seen in the late 1990s, although they are in line with long-run historical averages for the sector. Incumbents continue to outspend their competitors in absolute (though not always in

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<sup>5</sup> Data for this section are taken from ECTA, ETNO, ECCA, OECD, Cable Europe, European Commission sources as well as financial research by investment banks Morgan Stanley and Goldman Sachs.

<sup>6</sup> Ofcom, *Telecommunications Market Data Tables Q2 2006* (January 2007), p.17-18.

<sup>7</sup> German Office for Statistics, *Consumer Price Index for Telecommunications Services*, 8 January 2007.

relative) terms; and approximately 70% of total EU 25 investment is accounted for by the five largest markets.

The increase in investment has to be attributed to both cyclical and structural factors. On the cyclical side, all major operators – while under significant pressure from strong price-based competition in most of their business lines – continue to extract sizable cash flows from their legacy businesses. Moreover, servicing debt and repaying principal was facilitated by continued low interest rates in the period under review. Both of these factors provided the basis, in the fixed sector, for strong investment in next generation networks – widely seen as the principal source of future profits and rendered even more urgent by sometimes powerful competition from alternative cable operators.

In the mobile sector the cycle is slightly more advanced, and, on this level of analysis, investment can be expected to remain flat or even to decrease slightly over the coming years. Most operators are reticent to commit to new infrastructure investments in the light of the comparatively slow take-up of 3G services, and there is evidence that future services will probably be based on existing networks.

On the structural side, arguably, where regulatory action has been appropriate, it has created an environment of regulatory certainty and flexibility, in which remedies can be applied that are commensurate with national economic circumstances and thus conducive to investment. For example, while most national regulatory authorities have opted for the imposition of LLU-obligations on the dominant integrated provider of fixed services with a view to encouraging network investment by alternative players, the UK regulator has chosen to go one step further and to separate functionally the wholesale from the retail arm of the incumbent operator.

Broadly speaking, as in the past, it can be argued that genuine platform-based competition is more conducive to investment and more desirable than simple service-based competition. Therefore, it is important to realise that in economic circumstances where for historical or accidental reasons platform-based competition has yet to emerge, the framework's concept of the investment ladder is useful. A regulatory focus on removing barriers to entry generally is more appropriate than one that actively privileges investments by specific players.

Mergers and acquisitions activity remained an important feature of the sector. In 2006, however total transactions in the EU are estimated to have fallen slightly short of the previous year's €70 billion<sup>8</sup>. Typical driving factors behind deals were the aim of achieving scale through pan-European consolidation, a shift of emphasis from voice to data and a continued inflow of speculative capital from private equity groups profiting from historically still low interest rates. In 2006 – continuing a trend already established in 2005 - private equity groups are estimated to have accounted for one in five transactions. A good example of this was the acquisition of a 4.5% minority stake in the German incumbent by a US buy-out investor. Finally, many mergers and acquisitions had an important cross-border dimension, perhaps best typified by the €26.8 billion take-over of the second-largest UK mobile network operator by the Spanish incumbent.

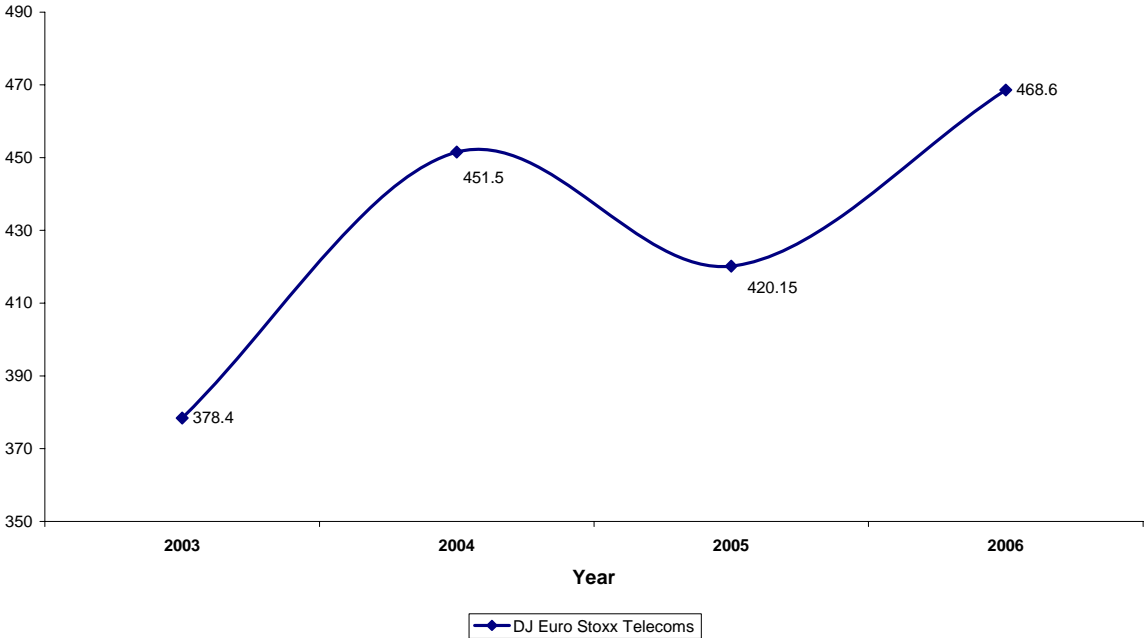
Mergers and acquisitions activity in 2006 was also linked to the changing financial performance of the sector. After a difficult year in 2005, the financial outlook for the major players in the European electronic communications brightened slightly in 2006. As measured

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<sup>8</sup> Commission estimate; Morgan Stanley; ING.

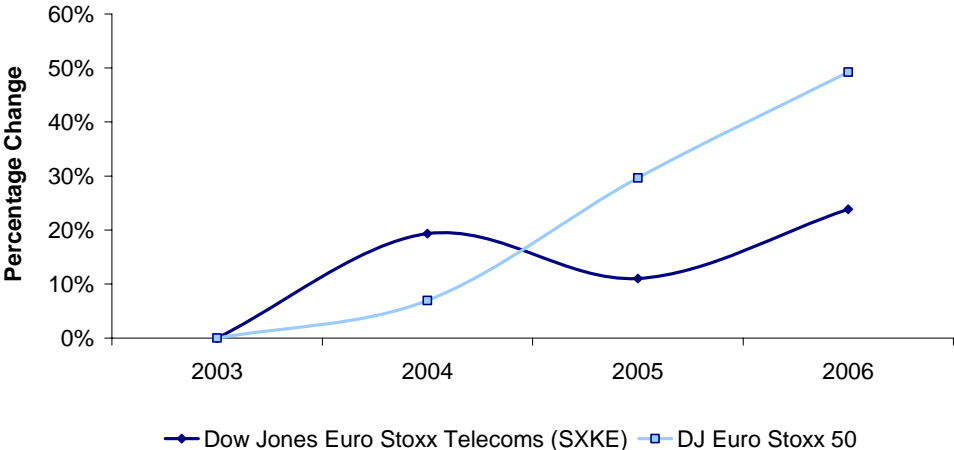
by the Dow Jones Euro Stoxx Telecommunications Index (SXKE), the value of the sector in 2006 increased by 11.53%. Over three years, the increase was 23.84% (see chart 1). While all major sector indices are disproportionately weighted towards the incumbent operators, they can still be seen as a good proxy for the overall financial health of the industry and its future growth perspectives.

**Performance Dow Jones Euro Stoxx Telecommunications (SXKE)**



The picture above is slightly more nuanced when assessed in a wider context, as shown in chart 2.

**Relative Sector Performance since 2003**



One reason for the volatile performance of the sector since 2003 may be the uncertainty over the industry's future business model in the context of ongoing changes in the electronic communications value chain. New players, such as internet companies, are entering the market for IP-based telephony and are leveraging their large and rapidly growing customer base to gain competitive advantages. In this way they exert pressure on traditional fixed and mobile providers to develop new strategies for retaining their customers in the face of innovative pricing models such as flat rates or even advertising-based tariffs. European incumbent operators are still dependent on their traditional voice and access businesses for approximately 60% of their EBITDA<sup>9</sup>. Clearly, the strong competitive pressures in these businesses are currently still outweighed by the high growth-rates in broadband. However, there is considerable uncertainty over what answers the industry will develop once these growth rates start to decrease in coming years.

Similarly, the mobile sector in past years has invested significantly in advanced network roll-out. However, meaningful revenue streams from next-generation services have yet to materialise. In mid-2006, non-voice revenues (the overwhelming proportion of which is standard text messaging) of European operators were estimated at 17.1%; and although these are significantly higher than the comparable figure for the US, this is not nearly enough to compensate for the increasing commoditisation of mobile voice services.

Contrasting with this picture, a benign macro-economic environment with low interest rates combined with solid operative performance has enabled the sector to reduce its debt levels and increase dividend pay-outs. The resulting dividend yields have probably created a floor below which financial valuations are unlikely to fall in the short term – even in the current period of transition that is creating so much uncertainty for investors.

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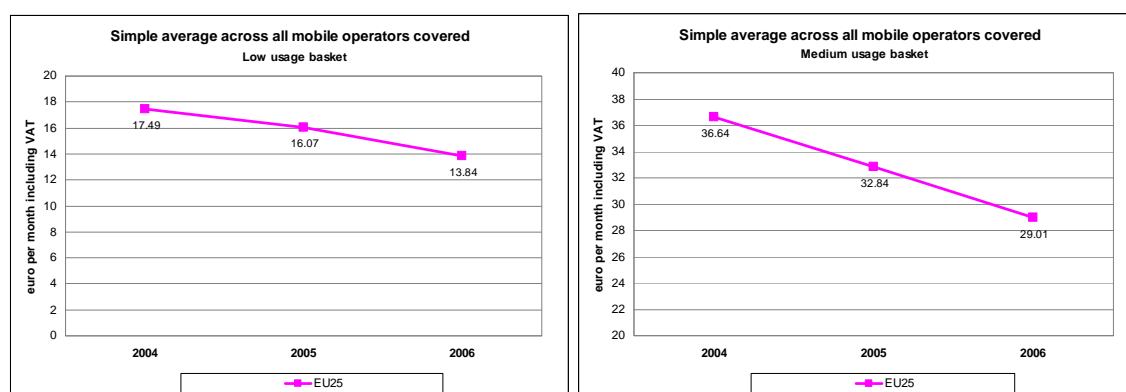
<sup>9</sup> Earnings before interest, taxes, depreciation and amortisation – as a measure for profits.

## THE MOBILE MARKET

Operators continued to register revenue growth even though the sector is now growing at a slower pace than last year. The mobile sector grew by 4.6% in 2006 compared to 5.9% in 2005, reaching now €133 billion in total. Growth was driven by further increases in penetration and to some extent by data services. The slowdown in growth can be attributed to intensifying competition, falling prices and the fact that, although penetration continues to rise, this does not have as much significance for revenue growth as in previous years, given that much of the increase is accounted for by customers owning more than one SIM.

Over the past two years consumers have begun to see significantly lower prices. This decline can be attributed to domestic prices and does not reflect the continued high prices that are charged for international roaming, which are the subject of a proposal for a regulation on international roaming adopted by the Commission in June 2006. Despite political pressure on operators last year to act and bring prices down, an intervention was deemed necessary since in most cases, standard prices for consumers remained particularly high.

The tables below give an indication of the fall in prices for mobile telephony between 2002 and 2006. A sharp drop in prices was registered at EU level over the period 2004 and 2006.

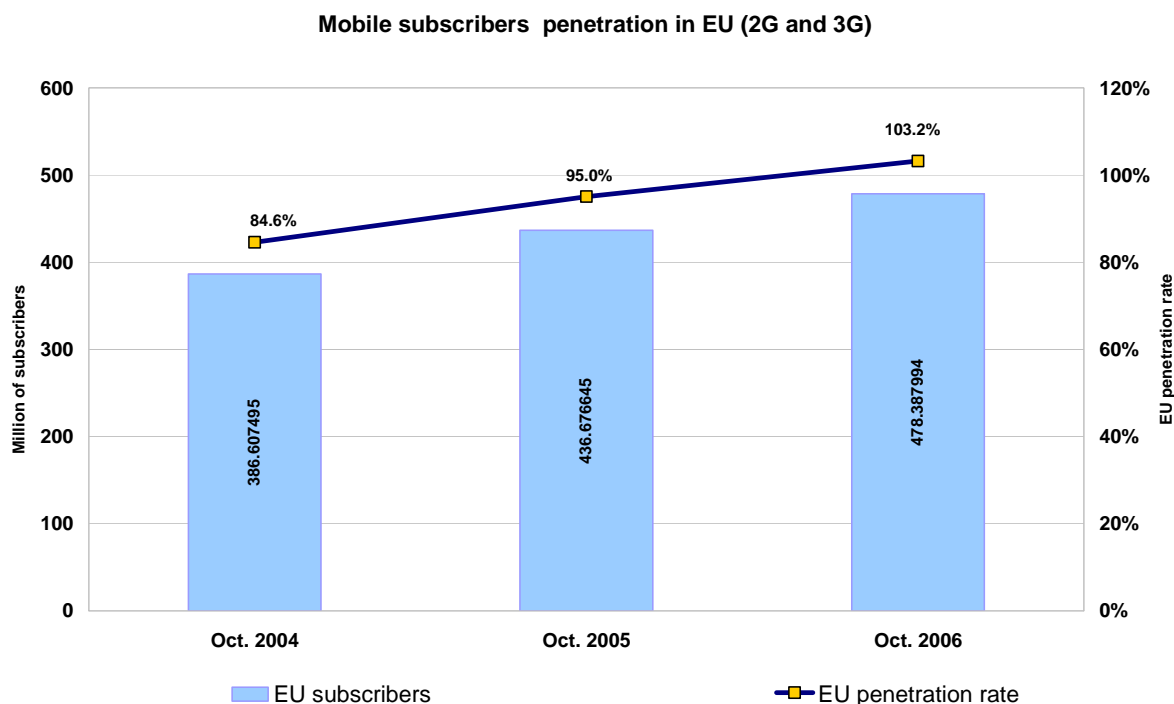


For the purposes of the above tables, OECD baskets have been used. Further details on the composition of these baskets can be found in the Annexes.

Despite still accounting for only a small share of the total revenue of mobile operators, non-SMS data services are now showing signs of growth. This growth may become even more pronounced when 3G operators have fully deployed HSDPA which will allow higher speed data transfers.

## MOBILE TAKE-UP

The average EU penetration rate continues to grow and is now above 103%. In fact, 17 Member States have now exceeded 100 per cent penetration. The reasons for such high penetration could range from consumers being in possession of more than one subscription to the use of data cards in computers and PDAs. Data cards, however, are still a niche product.



In terms of Member State penetration, Luxembourg<sup>10</sup> tops the list with 171%, followed by Italy with 134% and Lithuania with 133%. Luxembourg's high penetration is mainly attributed to trans-national commuters who have a Luxembourg SIM card. The growth in penetration has been less than the previous year, however, suggesting that mobile voice telephony is a maturing market and that growth in terms of penetration will be lower in the coming years. The graph below gives an indication of the penetration levels and number of subscribers in the different Member States.

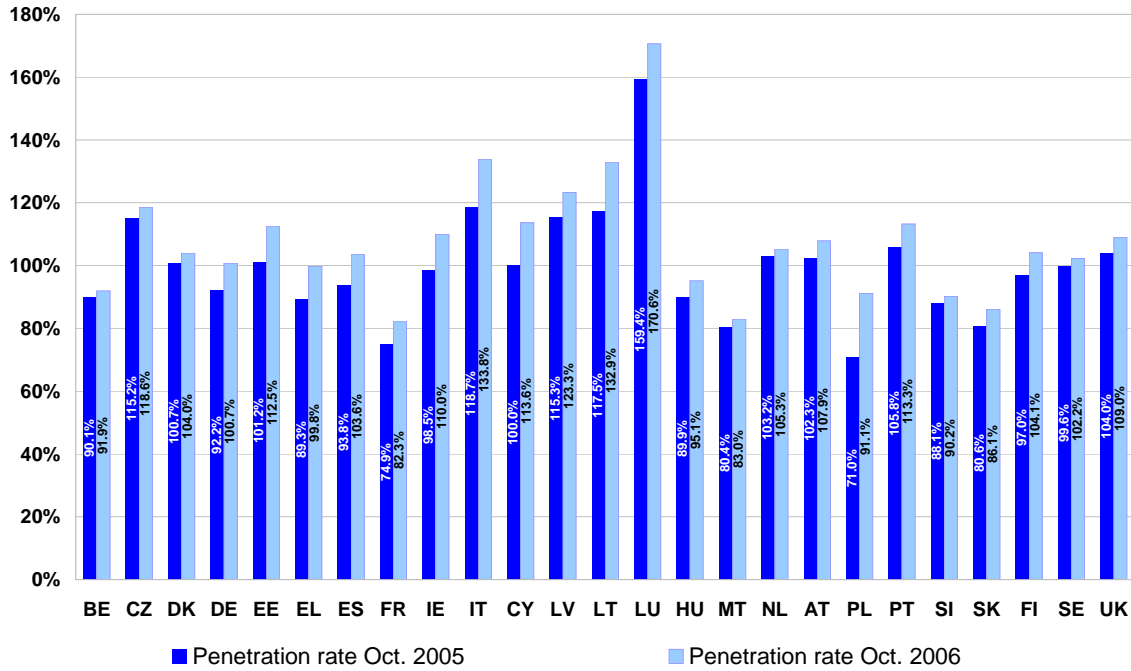
The highest growth in percentage terms was registered in Poland where subscriptions were up from 72% in 2005 to 91% in 2006. This means that, in just two years, penetration in Poland has gone up by 36%. Italy and Lithuania also registered strong growth of 15%. Cyprus also registered further growth of 14% following strong growth in the previous year.

On the other hand, some Member States have shown only slight growth, indicating that their markets have matured. It is interesting to note that low growth was also registered in Member States that have not reached 100% penetration, which may indicate potential for further growth in subscriptions in these Member States in the coming years.

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<sup>10</sup> It should be noted that penetration in Luxembourg is significantly lower if trans-national commuters are added to the national population.

Mobile penetration rate (and growth) 2005-2006

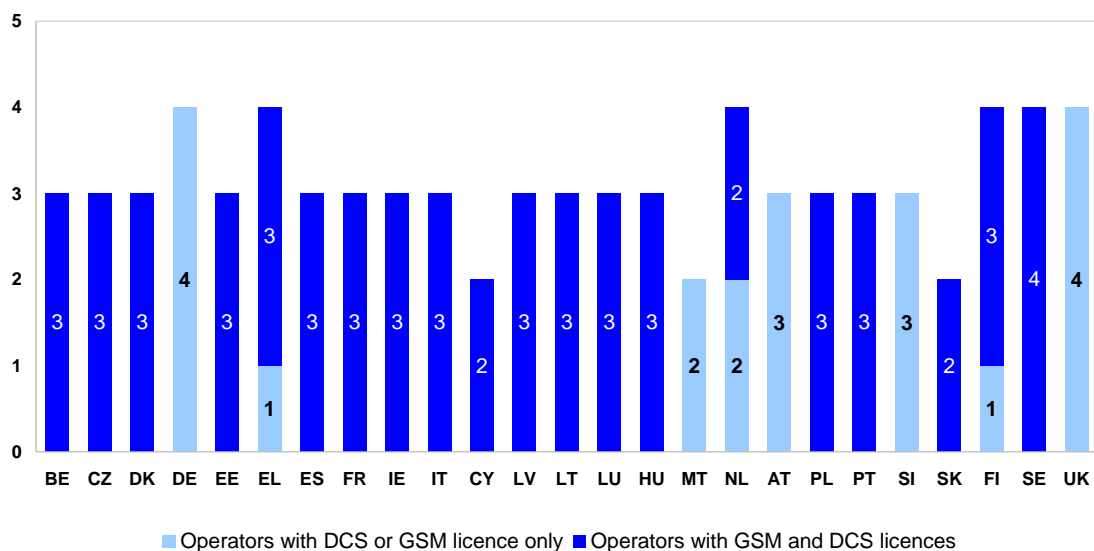


Pre-paid customers continue to be very important for mobile operators, with an EU average of nearly 60% as against 40% for post-paid customers. In Italy and Malta, in particular, pre-paid customers account for more than 90% of the market. On the other hand, in Finland pre-paid customers account for just 7%, while in Denmark only 18% are pre-paid customers.

### MARKET PLAYERS

While competition is intensifying in the mobile sector, as the situation with roaming charges shows, there is scope for even more competition. The number of mobile network operators has remained static and, while the number of service providers has continued to increase year on year, there are still many Member States where mobile service providers are not yet present.

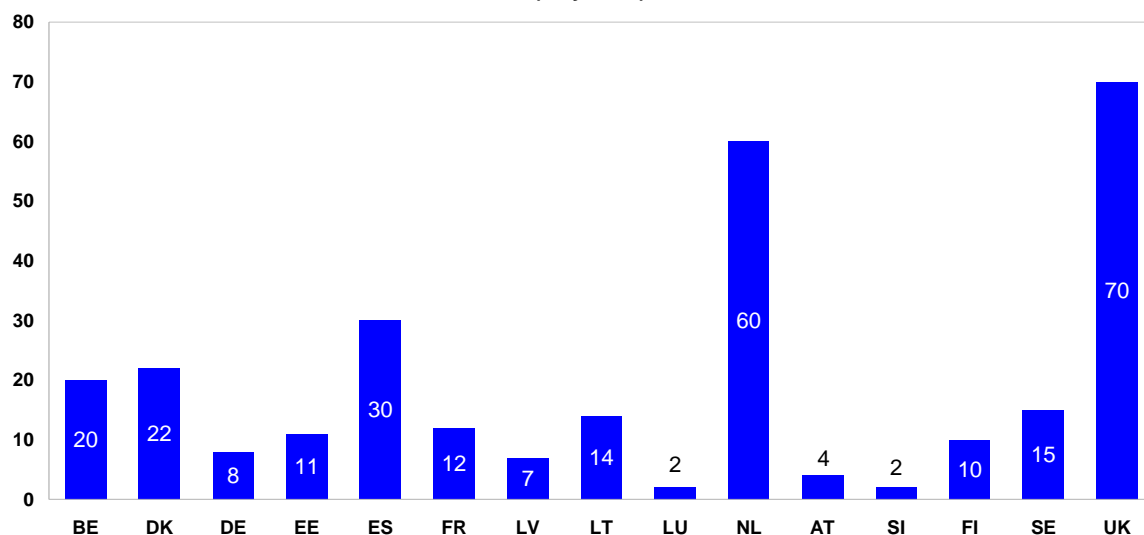
## 2.G Mobile Network Operators, July 2006



In total, compared to the previous year, the number of mobile service providers which are defined as mobile virtual network operators, enhanced service providers or simple resellers has risen to 290, an increase of 76 on the previous year.

While not all service providers are already active in the market, the number of authorisations for these types of operators has continued to increase in many Member States with the highest number of service providers being found in the UK (70) and the Netherlands (60). However, as the table below indicates, 10 Member States still have no mobile service providers.

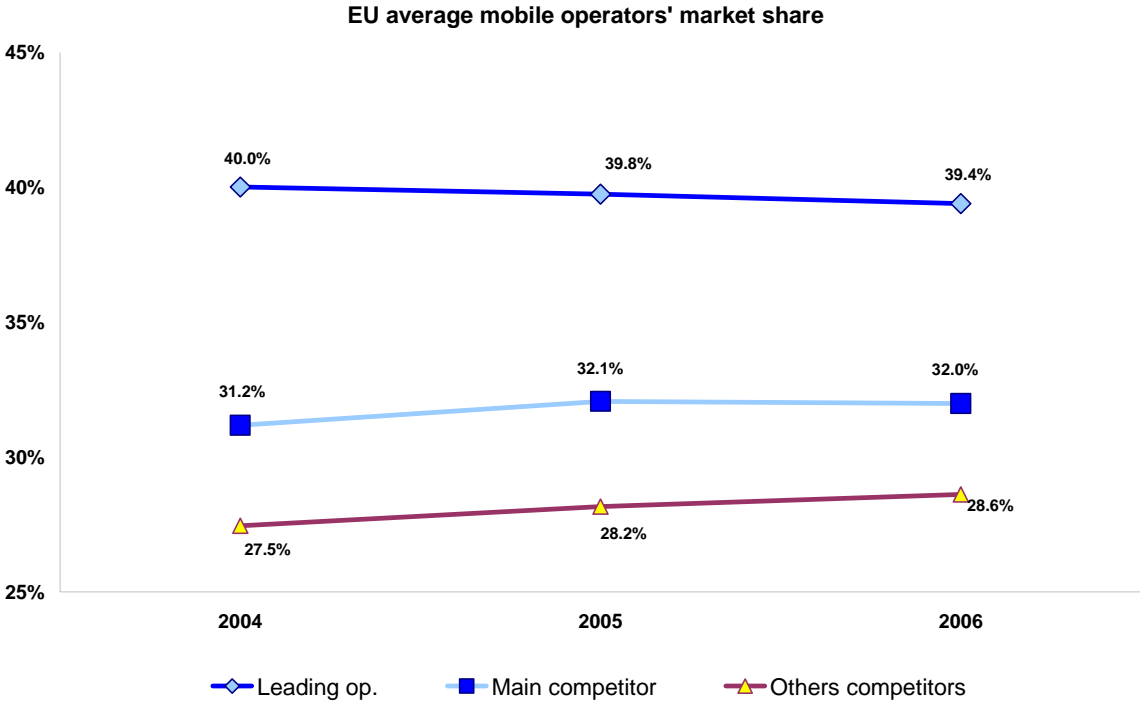
### Mobile service providers (July 2006)



Despite the fact that competition may be deemed to be increasing in many EU countries, the following table shows that the actual decrease in the market share of the leading operators was relatively small between 2004 and 2006. In percentage terms, the decrease in the leading operator's market share in terms of subscribers between 2005 and 2006 was only 0.2% while the main competitors increased their market share by 0.1% between 2005 and 2006.



Although there are Member States such as Cyprus and Slovenia where the leading operator has a market share of over 90% and 70% respectively, in general the leading operators in most Member States have between 40% and 50% of subscribers. The leading operator with the lowest market share can be found in the UK (23%), which also reflects the impact service providers have on competition.

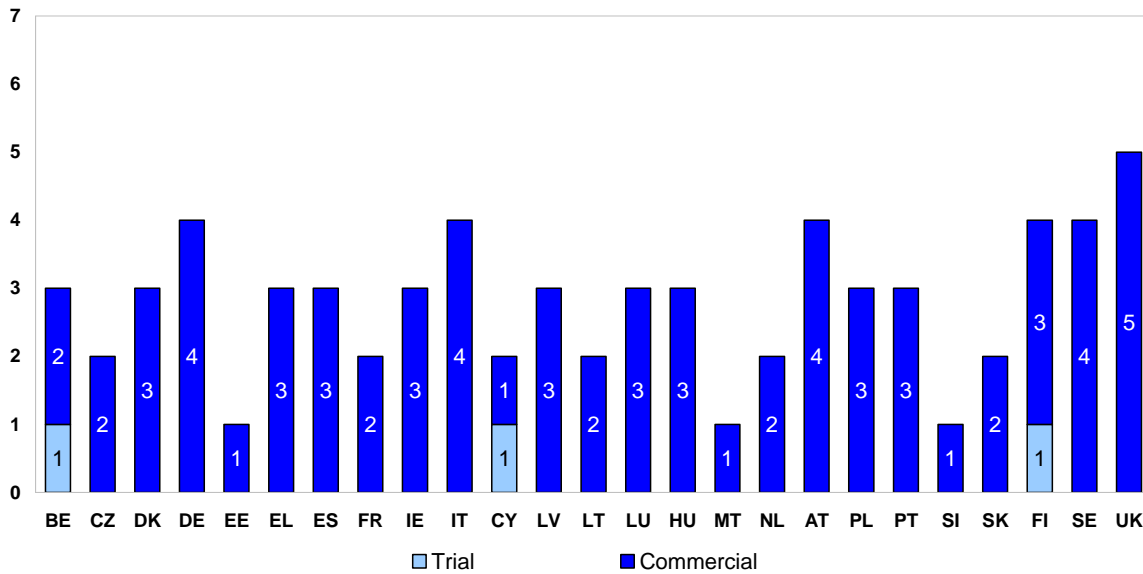


**3G AND DATA SERVICES**

There 70 operators now offering 3G on a commercial basis and 3G services are now available in all Member States. While Japan retains the highest penetration of 3G services, Europe now has the highest number of subscribers. It is estimated that there are around 45 million UMTS subscribers in the EU, indicating that Europe has in fact overtaken Japan as leader with regard to 3G subscriptions.

3G penetration in Europe is highest in Italy, with nearly 20% of total mobile subscribers now using 3G networks for their services. Penetration for 3G services is also high in Portugal, Luxembourg, Ireland, UK and Sweden.

UMTS operators offering commercial services, July 2006



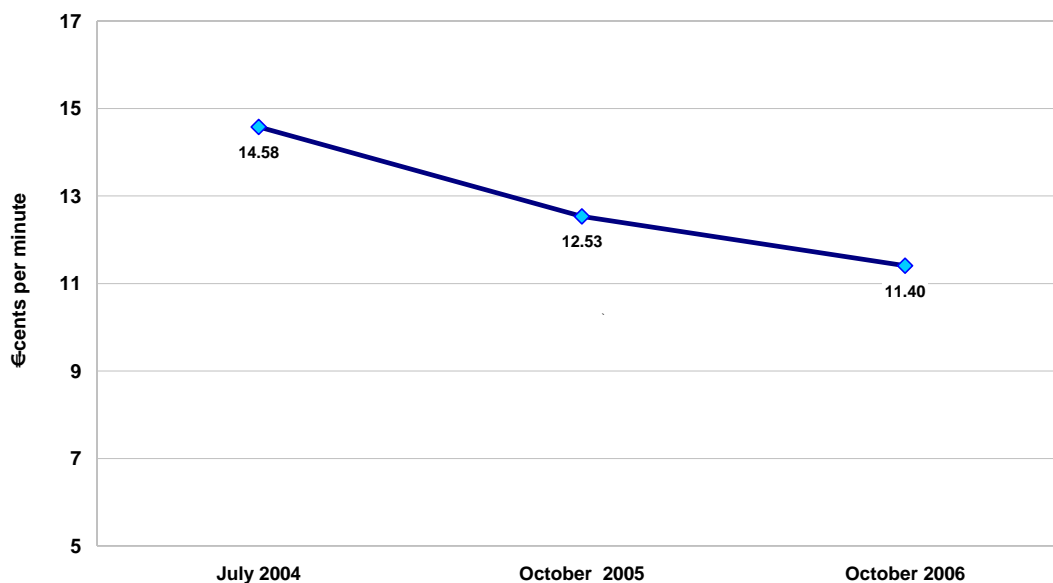
SMS still remains a very important source of revenue for mobile operators but other data services are growing in importance. Although they still account for only a small percentage of total revenue, non-SMS services - such as access to internet via mobile devices and music downloads - may in future become the primary driver for additional growth. Operators are now starting to report that other data services are beginning to show an important contribution to the overall mix. In fact, one operator reports that 34% of ARPU in Italy came from data.

Some operators are also encouraging their customers to use data services through flat-rate data tariffs. These could be a very important factor for operators since they will need to compensate for the lower projected growth rate in voice services.

**INTERCONNECTION AND ACCESS**

Prices for mobile termination rates (MTRs) have continued to decline, as can be seen in the table below. This year, no distinction is being made between SMP and non-SMP operators since practically all operators have been designated as having SMP in the mobile termination markets.

EU average interconnection charges for call termination on mobile networks



On aggregate, the figure of 12.53 cents in 2005 went down to 11.40 cents in 2006 - a drop of 9%. The most significant reductions in MTRs occurred in France (around 24%) and in Denmark, Austria, Portugal and Sweden (down 20% in all countries). Significant reductions (of between 11% and 17%) can also be observed in Germany, Greece, Spain, Luxembourg, the Netherlands, Hungary and Slovenia. Nevertheless, MTRs remain, on average, more than 9 times higher than the average fixed interconnection charges (double transit).

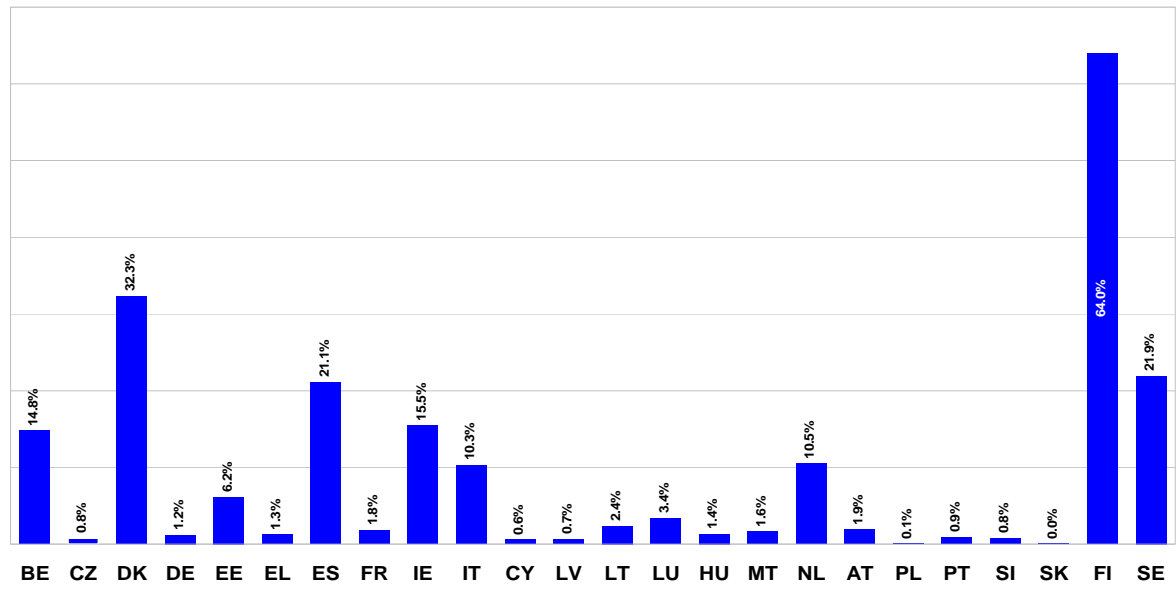
### MOBILE NUMBER PORTABILITY

The number of mobile ported numbers has increased significantly over the past year (up by almost 6.3 million). As of October 2006 31.4 million subscribers in 24 Member States have ported their number since this facility was introduced (data not available for the United Kingdom).

Apart from the countries that did not introduce number portability until 2006, there has been significant growth in the amount of mobile numbers ported in France, the Netherlands, Finland and Sweden.

Mobile numbers ported as a percentage of total mobile subscribers are higher in Finland (over 64%) and Denmark (32%). Spain and Sweden have over 20%, while Belgium, Ireland, Italy and Netherlands have ported between 10% and 16% of the existing mobile numbers. Most of the new Member States show a very low level of numbers ported compared to the total of number of mobile subscribers owing to the late introduction of number portability. The percentage of mobile number ported is also quite low in Luxembourg (3.4%) and in Germany, Greece, France, Portugal and Austria (not higher than 1.9%).

% of mobile number ported over total mobile subscribers (Oct. 2006)



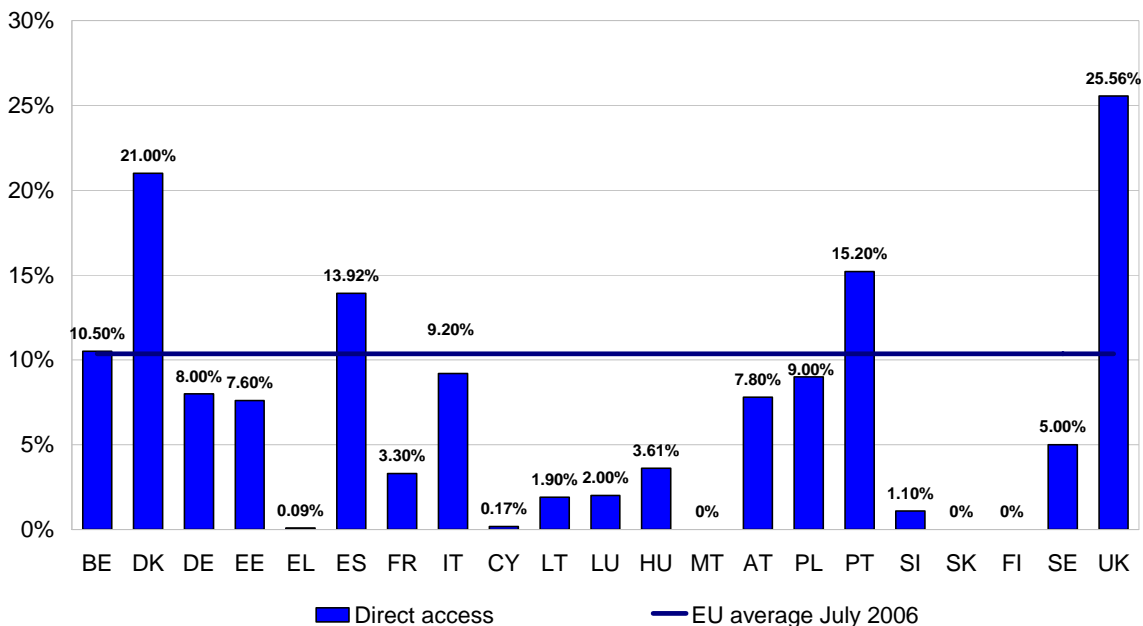
# FIXED VOICE TELEPHONY

## COMPETITION

Competition in the fixed voice market continues to be largely based on indirect access wholesale products such as carrier pre-selection (CPS) and carrier selection (CS). CS and CPS services are now available in all Member States. However, the number of alternative operators using CS or CPS as a percentage of active operators has remained stable, even decreasing in some Member States as a result of either the increased number of unbundled lines or increased investment in networks. The biggest decrease in CS/CPS has been in the UK mainly due to the growth of full LLU services. Wholesale Line Rental (WLR) has been introduced in more countries this year, indicating the potential for even greater competition in time. In countries where WLR products have already been available for some time, demand trends have been positive.

As regards direct access competition, compared to one year ago there has been an increase of about two percentage points, on average, in the proportion of subscribers using an alternative provider and it now stands at 10.4%. Alternative providers are providing these services over their own network via cable lines, unbundled lines, or other means of wireless access, such as fibre or PLC.

Subscribers using an alternative provider for direct access, July 2006



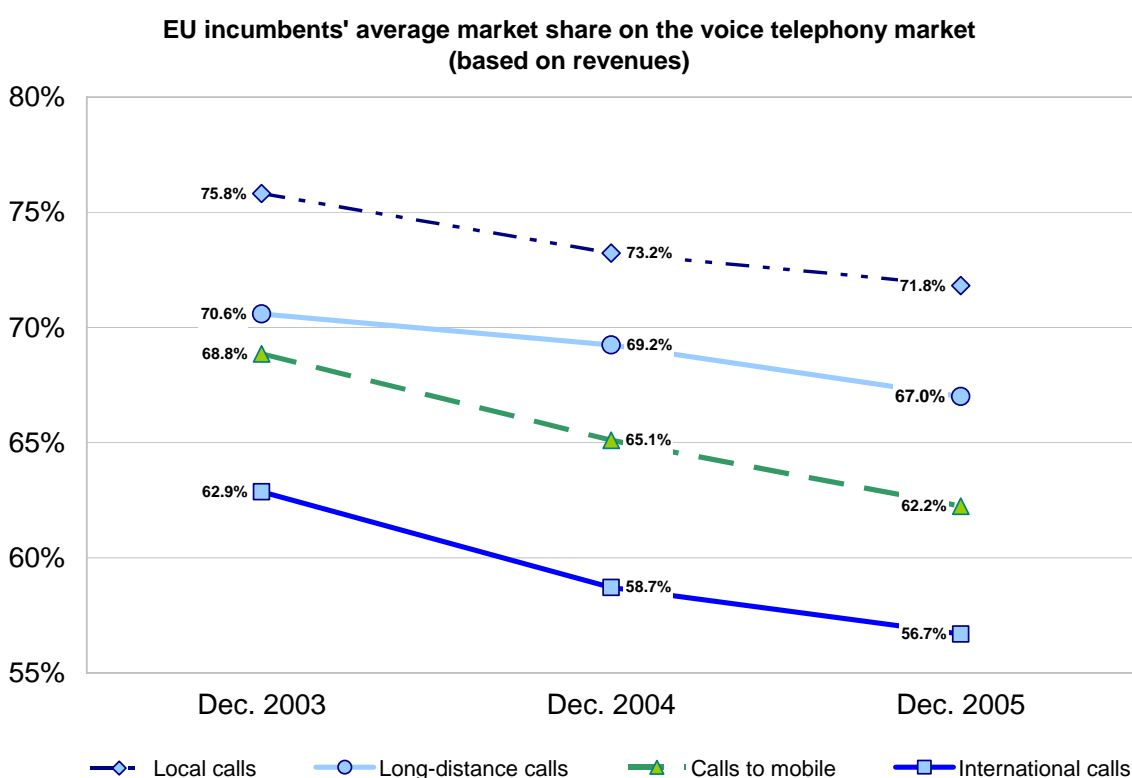
The high percentage of subscribers using an alternative operator for direct access, such as in Portugal, Italy and the UK<sup>11</sup> (countries where the percentage increase was the highest since September 2005) can be attributed to significant investments by operators in their own network and to a significant increase in local loop unbundling. In the case of Portugal,

<sup>11</sup> The figure for the UK excludes wholesale line rental.

15.20% of subscribers were using an alternative provider for direct access in 2006 compared to 11.0% in 2005. This increase can also be attributed to cable, LLU, and to the provision of access services using mobile frequencies.

### Market share

The EU average incumbents' market share in the overall fixed voice telephony markets<sup>12</sup> on the basis of retail revenues (but also by volume of traffic) continues to show a declining trend from 67.7% at Dec. 2004 to 65.8% at Dec. 2005 (figures by volume of traffic are, respectively, 66% in 2004 and 63.9% in 2005). Looking at the incumbent's market share in each Member State separately<sup>13</sup>, the biggest rate of decline (around 7%) has been experienced in Cyprus, Hungary, Ireland and Poland. It is also worth mentioning that the incumbent in Denmark increased its market share by minutes of traffic to 64.1% (Dec. 2005) compared to 60.94% (Dec.2004).



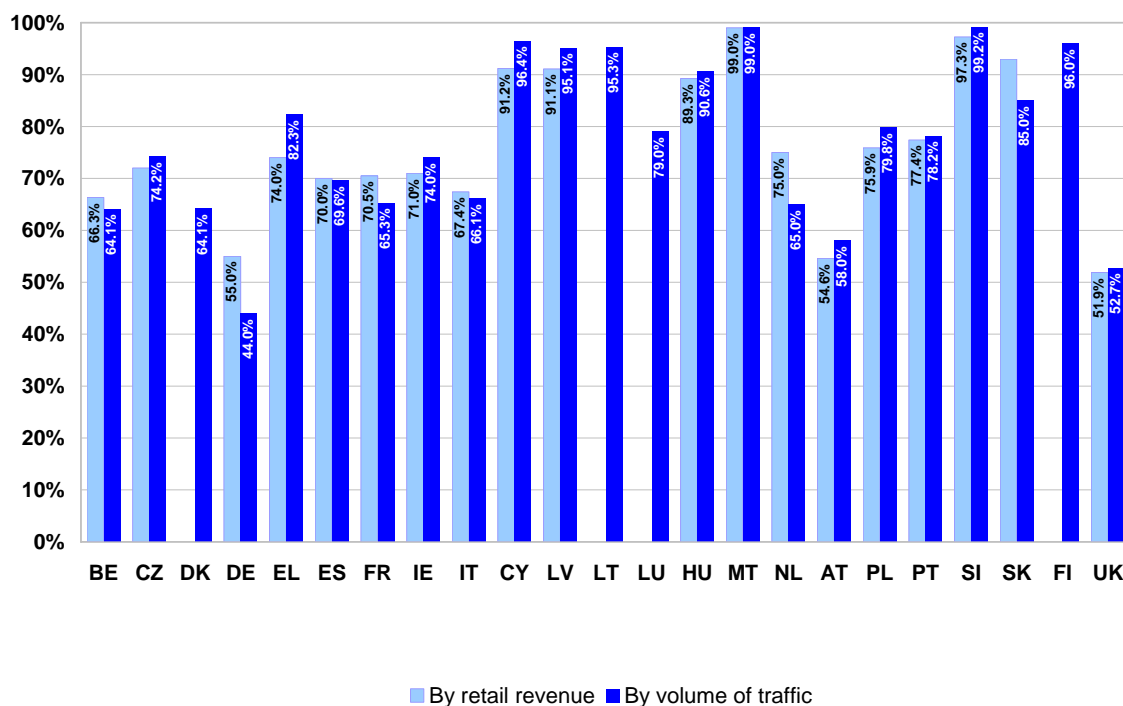
As the above graph shows, the difference between the EU average market shares of the incumbents in local calls as compared to international calls is still significant (as last year) even though the rate of decline is comparable. Measured by declining incumbents' market share at EU level, the calls to mobile market (more than -4% since 2005) is more competitive than the international and long distance calls markets (around -3%). The local calls market shows the lowest declining incumbents' market share (around -2%).

Looking at the market share of the incumbents in individual Member States, the different calls markets reveal a varied pattern:

<sup>12</sup> All type of calls.

<sup>13</sup> See also the respective country chapters.

Incumbents' market share in the fixed telephony market (all types of calls)  
(Dec. 2005)



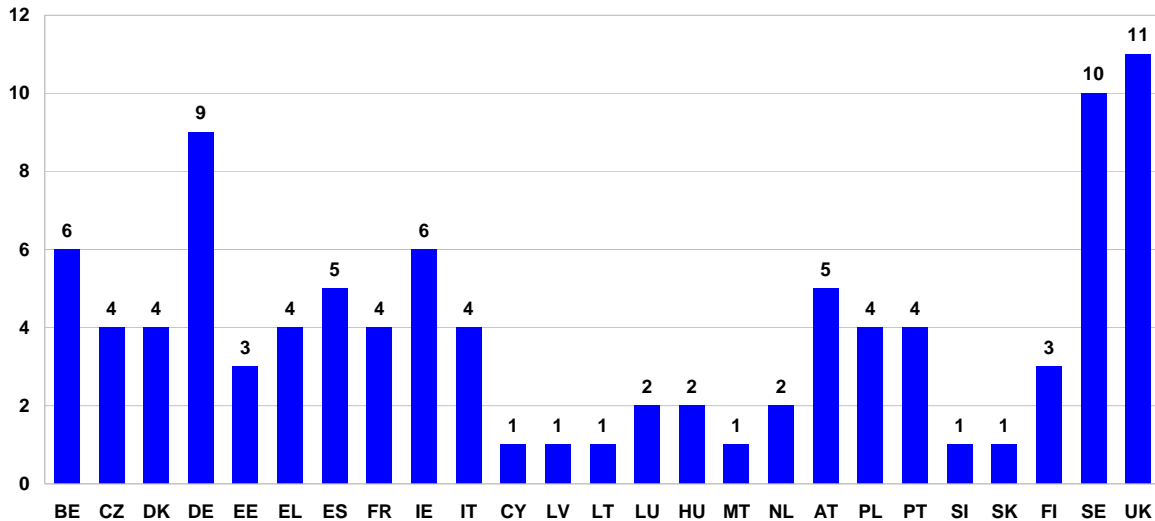
Incumbents' market share on overall fixed market remains particularly high (more than 90%) in Cyprus, Latvia, Lithuania, Hungary, Malta, Slovenia, Slovakia and Finland.

New entrants have managed to gain considerable market share by offering cheaper prices for certain types of calls. This has been observed in the international calls market in Italy, Poland and Slovenia (with a decrease of between 9% and 11%<sup>14</sup>), in the long distance call market in the Czech Republic (-35%) and Ireland (-15%), and in the local calls market in Belgium, Ireland and Hungary (between -7.5% and 8.7%).

Against the background of incumbents with declining market shares and despite the declining growth in the fixed voice sector, the EU fixed market has experienced an increase in the number of requests for new authorisations to provide fixed services during 2006, even if to a lesser extent than last year. As at July 2006 there were 2127 operators authorised to offer public voice telephony services and 2846 public network operators. Around 50% of the authorised operators were actually providing services as of July 2006. Many new entrants concentrate their business on specific segments of the market, thus having a limited impact on the overall level of competition. The chart below shows that only seven countries (Belgium, Germany, Spain, Ireland, Austria, Sweden and United Kingdom) had five or more major competing players (including the incumbent).

<sup>14</sup> By retail revenue.

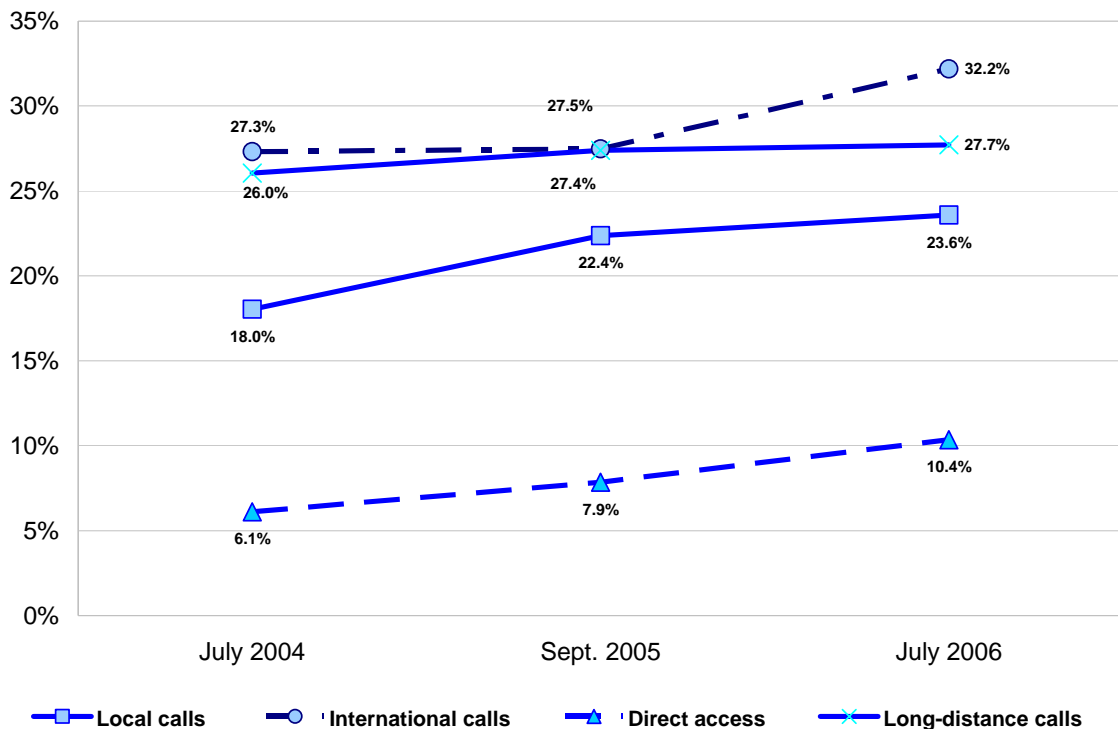
Number of players in the fixed telephony market in terms of retail revenues (including the incumbent, Dec. 2005)



Operators that along with the incumbent operator have a combined market share of 90% of the voice telephony market

The number of EU subscribers using alternative operators stabilised during the reporting year, with more subscribers opting for an alternative operator when making international calls. While the data in the chart should be considered as indicative, the percentage of subscribers using alternative operators for international calls has shown a substantial increase since September 2005. The fact that the percentage of subscribers using direct access reached 10.4% this year is noteworthy, although incumbents continue to dominate the local access market.

EU subscribers using an alternative provider





As the graph shows, the percentage of subscribers using alternative operators has increased only slightly for long-distance calls whereas the increase for international calls was more substantial. The fact that the percentage of subscribers using direct access reached 10.4% this year is noteworthy, although the incumbent's dominance in the local access market still prevails.

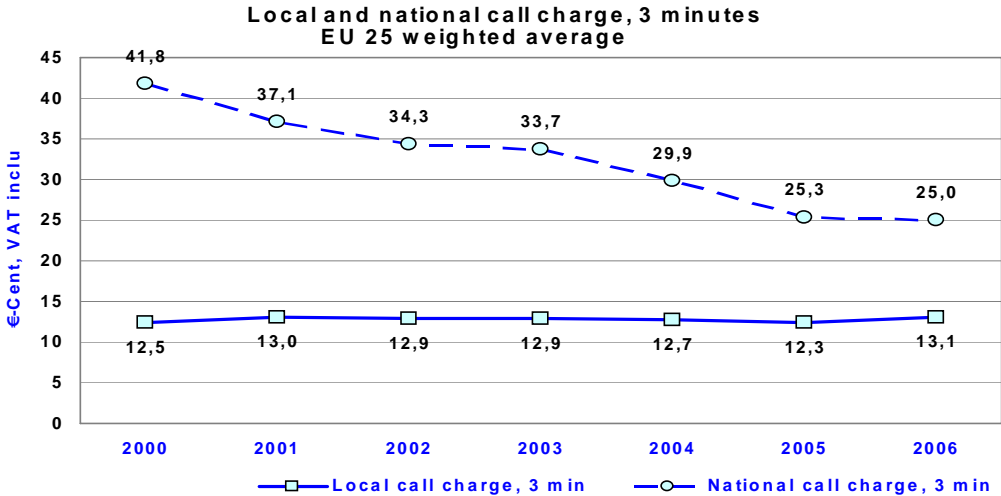
Fixed number portability has continued to contribute positively to the competitiveness of the market. It is currently introduced in all Member States except Slovakia; in Malta, however, the service is not yet effective. Strong growth in the number of ported numbers has been recorded in Spain, France, the Netherlands and Sweden. Since the introduction of fixed portability, a total of more than 15 million subscribers have ported their numbers as of October 2006 (compared to 7 million as at October 2005).

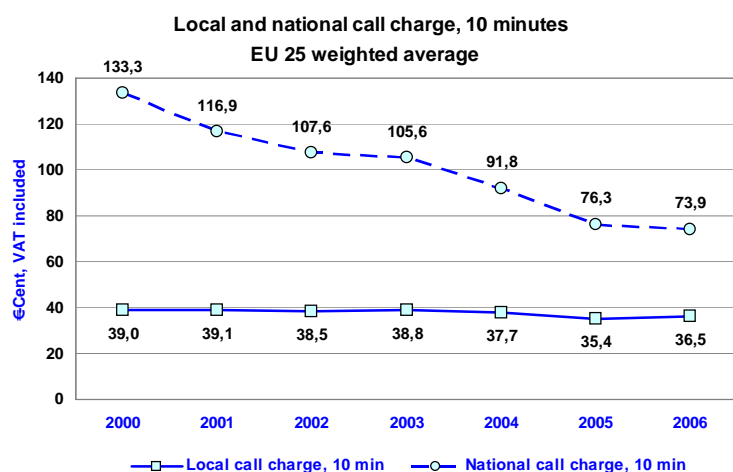
Revenues from fixed telephony are on a long-term downward trend, driven by falling prices due to increased competition between operators and by fixed-mobile substitution. Partly in response to this trend, operators in many EU Member States have increasingly begun to make available triple play services (where television, voice and internet are delivered on the same 'pipe' from a single service provider), which are expected to shift the consumer market further towards broadband connections. Quadruple play offers (which also include mobile voice) are also being made available in some Member States (e.g. France, Finland, Germany, Sweden and the Netherlands).

During the reporting year VoIP has become widely available in the EU, showing strong growth in some countries. Both incumbents and alternative operators are responding to this new IP environment by offering VoIP products or bundled packages which include voice services. Companies in a number of Member States have introduced Voice over Broadband (VoB) services. If VoIP continues to grow over the coming years, competition and prices in the fixed voice telephony market may be further affected.

**PRICING**

The declining trend depicted in the prices for 3-minute and 10-minute calls is evident in the following graphs:





Prices of both 3-minute and 10 minute national calls have continued to decrease, albeit more slowly and less steeply than the previous decrease since 2000. Prices for 3-minute calls have decreased by 1.1% and for 10-minute calls by 3%.

## INTERCONNECTION

In the case of two Member States - Portugal and Poland – NRAs have imposed an obligation on the respective incumbents to modify their RIO so as to introduce capacity-based interconnection as an alternative method of interconnection. This interconnection model allows an operator to contract certain capacity for interconnection services from the dominant operator at a specific point of interconnection, paying a fixed cost, regardless of the traffic minutes actually routed. It also gives an incentive to alternative operators to increase traffic volumes, allowing the routing of a higher number of minutes at lower unit costs. This model of interconnection was first successfully implemented in Spain where more than half of the fixed access and termination interconnection is now capacity-based. The increased flexibility offered by capacity-based interconnections makes it easier for alternative operators to provide a varied range of retail offers, such as flat rates for voice or data, bundled offers, free or discounted calls.

EU average fixed interconnection charges for call termination on the incumbent's network have further decreased this year for all level of interconnection. The decrease in prices, which ranges from 6.5% for local level to 8.5% for single transit, and 10% for double transit, was due to regulatory measures taken by the national regulatory authorities following the analysis of the relevant market or to modifications made in cost-accounting systems used for defining cost-oriented prices for interconnection in some Member States. Operators thus profited from lowered interconnection costs.

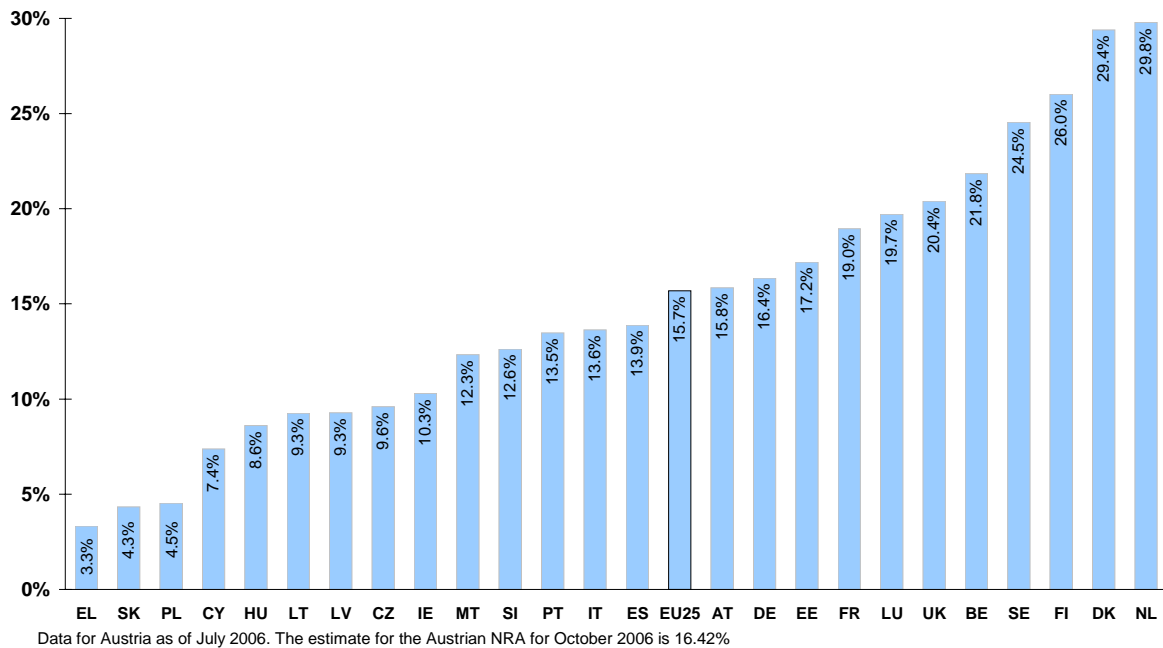
A significant development in the EU fixed telephony market in 2006 has been the implementation of operational separation of the UK fixed incumbent's access network business. This has been achieved by the creation of a new business unit, Openreach, which operates the access and bottleneck network of the UK incumbent. The aim is to deliver key access products to communication providers in a way that guarantees equality of access to the incumbent's infrastructure on fair and equal terms. The UK NRA, Ofcom, is expecting that investments in infrastructure will be encouraged, that innovations through multiple services will be enabled, and that deployment of next-generation networks will be increased. The overall benefit to the consumer would thus be lower prices and greater choice of products and services.

# BROADBAND

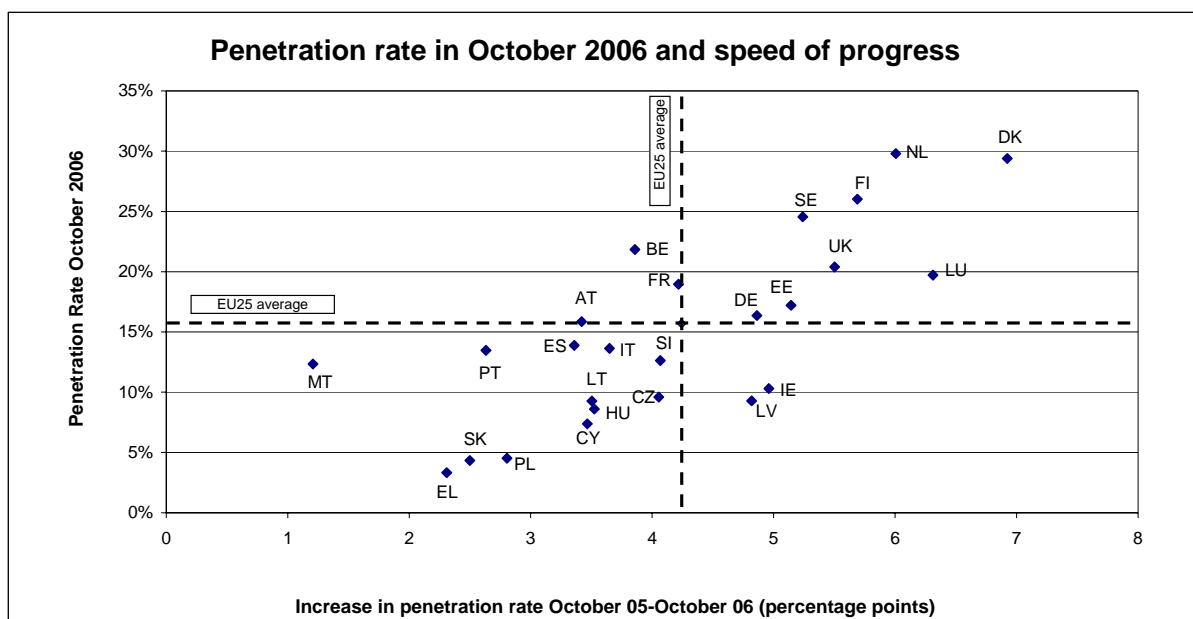
## TAKE-UP

There has been a further substantial increase in broadband take-up in the EU. The number of fixed broadband access lines is now almost 73 million as of 1 October 2006, compared to 52.6 million in October 2005 - an increase of more than 20 million lines. On average, 55 146 broadband lines were added per day during 2006 compared to 52 482 new broadband lines per day during the previous year.

EU Broadband penetration rate, 1 October 2006



As a result the EU average broadband penetration rate has risen from 11.4% in October 2005 to 15.7% in October 2006. Overall sector size reached €58.5 billion.



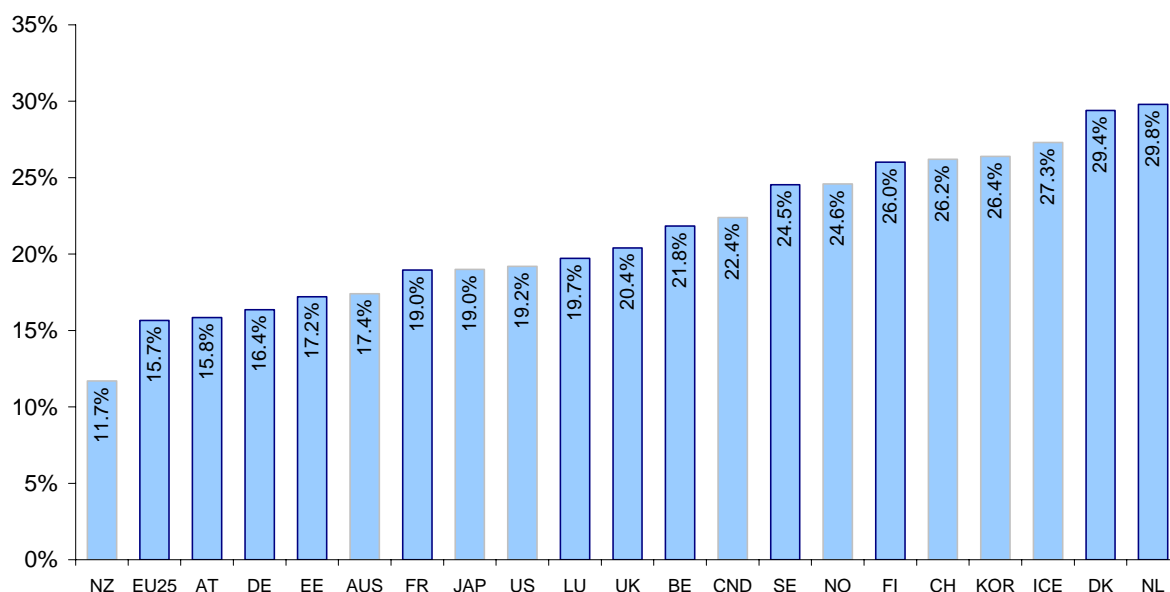
Data for Austria as of July 2006.

Growth has been highest in Denmark and Luxembourg, followed by the Netherlands, Finland, the UK and Sweden. Member States with growth higher than the EU25 average also include Estonia, Ireland, Germany and Latvia. The gap between the Member States with the highest and the lowest penetration increased from 23.6 percentage points in October 2005 to 26.5 percentage points in October 2006. The UK is now among the most successful Member States (the Netherlands, Denmark, Finland, Sweden and Belgium) in terms of penetration rates. Among the new Member States, Estonia and Slovenia in particular continue to perform well, whereas Malta has seen a decline in growth.

### INTERNATIONAL COMPARISON

The Netherlands and Denmark now have the highest broadband penetration in the world and other EU countries are also among the world leaders. However, the EU still lags behind some other comparable world economies on average.

**International Broadband Penetration Rates  
(EU - 1 October 2006, 3rd countries - 30 June 2006)**



Data for Austria as of July 2006. The estimate of the Austrian NRA for October 2006 is 16.42%.

The US seems to have performed better than in 2005, while Japan and South Korea underperformed compared to the situation one year ago. South Korea, in particular, has been showing very strong signs that growth potential is flattening out as the country is potentially nearing its natural saturation point.

Comparable 3rd Countries	Broadband Population Penetration Rate (30 June 2006)	Annual Increase in Penetration Rate (% points)	Source
Iceland	27.3%	5.8	OECD, June 2006
South Korea	26.4%	1.1	OECD, June 2006
Switzerland	26.2%	5.8	OECD, June 2006
Norway	24.6%	6.5	OECD, June 2006
Canada	22.4%	3.2	OECD, June 2006
US	19.2%	4.7	OECD, June 2006
Japan	19.0%	2.6	OECD, June 2006
Australia	17.4%	6.6	OECD, June 2006
New Zealand	11.7%	4.7	OECD, June 2006

DSL continues to be the leading platform in the EU (at 81.7% of all broadband lines)<sup>15</sup>, while broadband over cable is well developed in the USA, South Korea, and Canada. Japan leads in terms of fibre-to-the-home (FTTH) with 6.3 million fibre broadband subscribers in June 2006. In Japan, there are more subscribers using fibre than other access modes. Despite the incumbent having an obligation to offer unbundled access to its fibre, the main driver for this investment in Japan seems to be the intense local competition (in particular with electricity utilities) and strong evidence of demand for more bandwidth among consumers. In South Korea, the total number of DSL connections continues to decline as more users upgrade to fibre. In the USA, investment in fibre is continuing, while China is reputed to have at least 5 million FTTH connections.

<sup>15</sup> The predominant speed in the US is 2.5 Mbps, but 512 kbps – 2 Mbps in the EU (sources: IDATE, FCC).

### *Bridging the broadband gap*

Auctions for designations for WiMAX, CDMA, UMTS, HSDPA, LMDS licences were held in a number of Member States in 2006. Once these wireless networks are rolled out (some as early as 2007), options for end-users, particularly those in remote or sparsely populated areas, will increase. This will reinforce broadband take-up and accelerate the catching up process between urban and rural areas as well as between Member States, even more so when suitable frequencies become available.

### **BROADBAND TECHNOLOGY TRENDS**

In the EU, DSL continues to consolidate its position as the main broadband technology (81.8%). In contrast, broadband over cable, which stands at 15.5%, has decreased by 1.3 percentage points since October 2005. Other technologies (FTTH, wireless local loop (WLL), satellite, leased lines, LAN using Ethernet protocol, etc) account for 2.7%. Broadband over mobile networks (UMTS, HSDPA, CDMA, Flarion, EDGE) is gradually increasing, in particular in the new Member States.

The EU broadband market is becoming ever more sophisticated, with ADSL2+ and VDSL services and increasing transmission speeds facilitating the introduction of new services. Cable is responding with the Euro-DOCSIS technology, which is expected to increase data transmission speeds significantly.

#### DSL technology

From October 2004 to the present DSL lines grew by 127% compared to a 77.2% increase in cable modem subscriptions. Several incumbents have announced plans to invest further in DSL, in particular in sub-loops, in order to increase the efficiency of their networks. These developments could push up the investment costs of alternative operators and increase the number of interconnection points, as well as limiting the possibilities for co-location.

#### Other technologies

Cable is losing ground to DSL in all Member States with the strongest cable presence in Malta, Austria, Belgium, the Netherlands and Portugal (from 40.78% to 38.06%, on average). Nevertheless, some cable network operators (e.g. in Germany and Ireland) recently announced investments to upgrade their networks, which will place them in a position to offer competitive broadband (and triple play) products to a large number of end-users in the future.

Operators generally increased their investment in FTTH and WLL technologies. Take-up in FTTH-based lines is evident in Estonia, Sweden, Slovakia and Lithuania. WLL has seen significant growth in the Czech Republic and Ireland. Ethernet has developed into an important alternative platform in all three Baltic States. Municipal broadband projects are expanding in Northern European countries such as France and the Netherlands. These deployments are acting as an incentive for incumbent operators, some of which have announced large fibre roll-outs (France, Germany, Italy, Spain, the Netherlands, Belgium and Slovenia), although mainly not to the home, but only to the street cabinet.

## COMPETITION AND REGULATION

Of the many factors that contribute to broadband rollout, competition is key. Competition in broadband can be measured both at the infrastructure level (LLU + other technologies, mainly cable modem) and at the service level (bitstream and resale of DSL lines). The best performing countries in terms of broadband take-up have traditionally been characterised by competition between alternative platforms, which allows consumers to choose between different modes of access.

Take-up has been particularly strong in those countries where competition between DSL and cable has been effective. Thus, all five leading Member States in terms of penetration (the Netherlands, Denmark, Finland, Sweden and Belgium) also have a high roll-out of cable and have arrangements in place which allow alternative operators to gain access to the existing telecoms networks.

However, as the broadband market relies heavily on the DSL networks of incumbent operators (over 80% of broadband lines), access to these networks has been crucial to the development of competition. Sector regulation has brought about significant shifts in countries where DSL is the predominant access technology, in particular in countries where the unbundling of the local loop has made significant advances, e.g. the UK, Ireland and Portugal.

Other factors contribute to the development of consumer demand for broadband. Market growth has recently become more and more content-driven, as customers move away from traditional stand-alone products towards bundles of services, most often individually tailored, e.g. pay-per-view (PPV) and video on demand (VoD). At present however, the availability of greater download speeds appears to be stimulating more demand for online gaming and music download services. Broadband internet tools for real-time communication (e.g. VoIP tools) also drive overall competition and choice for end-users.

Additionally, foreign investments and attractive financial and tax environments can play a key role in the growth of broadband. In Estonia, for example, in the absence of effective DSL regulation, market take-up remains strong due to the presence of alternative networks co-financed by foreign investors.

In some new Member States, broadband penetration is hindered by social and economic conditions.



There is a general consensus that competition is one of the main drivers of broadband take-up. The best performers appear to be those Member States, such as the Netherlands and Denmark, where the presence of competing infrastructures is key to broadband take-up. Effective market regulation, permitting access to the incumbent's infrastructure, also stimulates the growth of broadband and intra-platform competition. For example, decisive regulatory action in France and functional separation in the United Kingdom have clearly been important factors.

Effective regulation improves market conditions and enables alternative operators to move gradually from service-based to infrastructure-based competition. In contrast to the above, in Member States where poor regulatory policy is combined with the absence of effective infrastructure-based competition, gaps in performance can be observed.

### Regulation and implementation of remedies

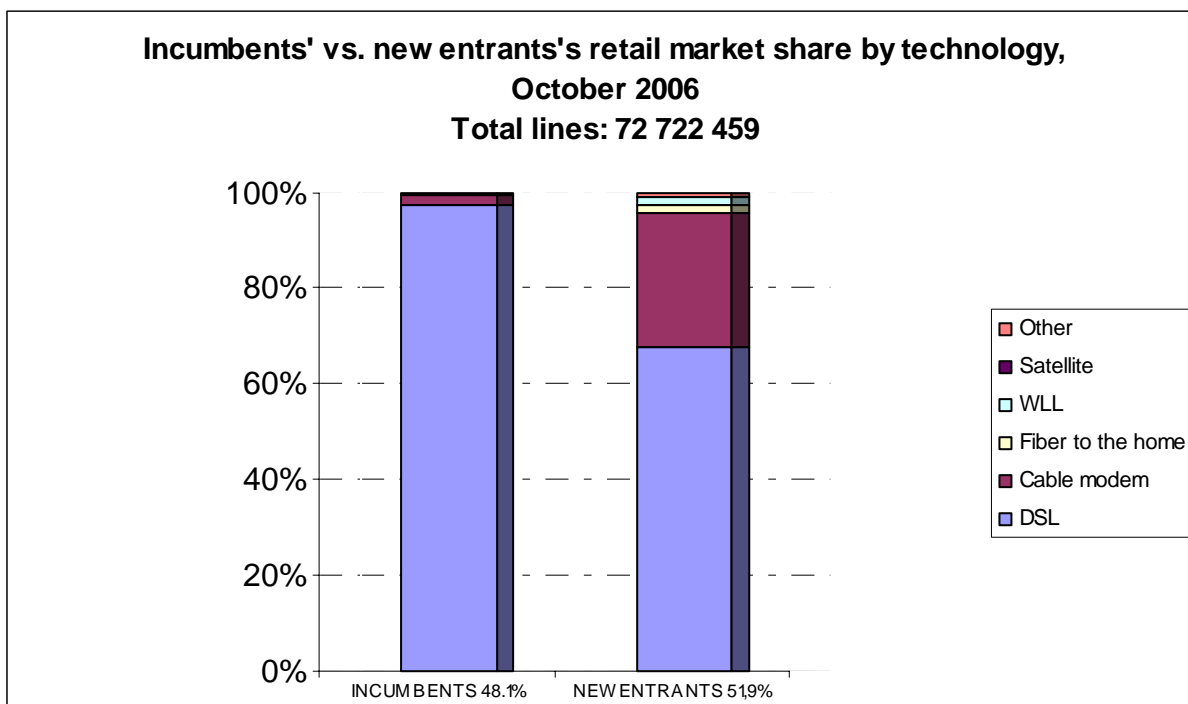
In the absence of competition between different platforms, national regulatory policies are critical in setting the right conditions for competition to develop by means of access to the incumbent's infrastructure, in particular through unbundling and bitstream access products.

However, the toolbox of pro-competition remedies provided by the regulatory framework can only be used when the framework is in place and the market reviews have been completed. Late transposition has undoubtedly had a detrimental impact in this regard, in particular in Member States without effective infrastructure competition. This is exacerbated where market reviews themselves have been late in starting. Belgium has not yet analysed either of the two recommended markets, i.e. LLU market (market 11) and wholesale broadband access (market 12), Malta was late with market 12, and Estonia with market 11, whereas Germany has not notified all the remedies on market 12. Latvia did not notify both markets until late November 2006.

NRAs have generally determined that the relevant markets are not effectively competitive and have generally imposed access obligations. Furthermore, almost all NRAs that have notified market 11 have imposed some sort of price control and cost accounting obligation; on the other hand the majority of regulators that have notified market 12 have imposed price control and cost accounting obligations, albeit mainly using retail-minus formulas.

There is evidence of some regulators focusing more closely on the potential for different conditions of competition to apply in different geographic areas within their territory, thereby offering the prospect of differentiated remedies.

Partly as a result of generally effective market regulation in the EU25, competition has grown, with the incumbents' broadband market share falling to 48.1% from last year's 50.2% on average. The situation regarding market shares differs from one Member State to another, ranging from 24.8% (incumbent's market share) in the UK to 98.3% in Cyprus. Growth of alternative operators' market share between October 2005 and October 2006 has been significant in some countries, such as Germany (17 percentage points), Slovakia (16 percentage points), Latvia (14 percentage points), Ireland (10 percentage points) and Greece (10 percentage points).



The results of regulation appear to be very positive in Denmark, where the NRA has imposed very strict remedies. Bitstream has become available in Germany, while the number of LLU lines is growing in Slovenia as a consequence of broadband regulation. Owing to the existence of several alternative operators (both cable operators and LLU operators), the Netherlands is the only Member State where the wholesale broadband bitstream is not regulated.

Some Member States have achieved competition based on full or shared LLU access. In these countries (e.g. France, Germany, Sweden, Finland, and the Netherlands) alternative operators hold significant shares of the DSL market. France has one of the highest broadband penetration rates measured by access-based competition.

On the other hand, weak regulation, difficulties with enforcement of remedies and appeals against the imposition of remedies are capable of seriously hindering the effectiveness of wholesale broadband regulation, with a resultant negative impact on the development of competition. In certain Member States (e.g. Hungary, Latvia, Slovakia, Lithuania and Cyprus), alternative operators have a very low share of the DSL market. Resale appears to be the only service-based type of DSL wholesale offer in Slovakia and Malta. In Lithuania, bitstream appears to be viable only for non-residential users. The situation is particularly serious in Cyprus, where - apart from a small number of unbundled lines - there are no alternative infrastructures.

Furthermore, the degree of precision of remedies imposed by the regulators has been an issue with regard to the wholesale broadband market (market 12) in Poland and the LLU market (market 11) in Slovakia. Finnish legislation leaves it up to the operators themselves to decide which kind of cost accounting model is applied in LLU and bitstream markets.

The UK has, as an example of good practice, stepped up the oversight of the LLU process by creating new enforcement structures, aimed at assisting the NRA in tackling practical problems in the implementation of regulated processes.

In Belgium, Hungary, the Netherlands and Sweden, systematic or frequent legal challenges also tend to delay implementation of remedies.

## **LLU PRICING**

### General

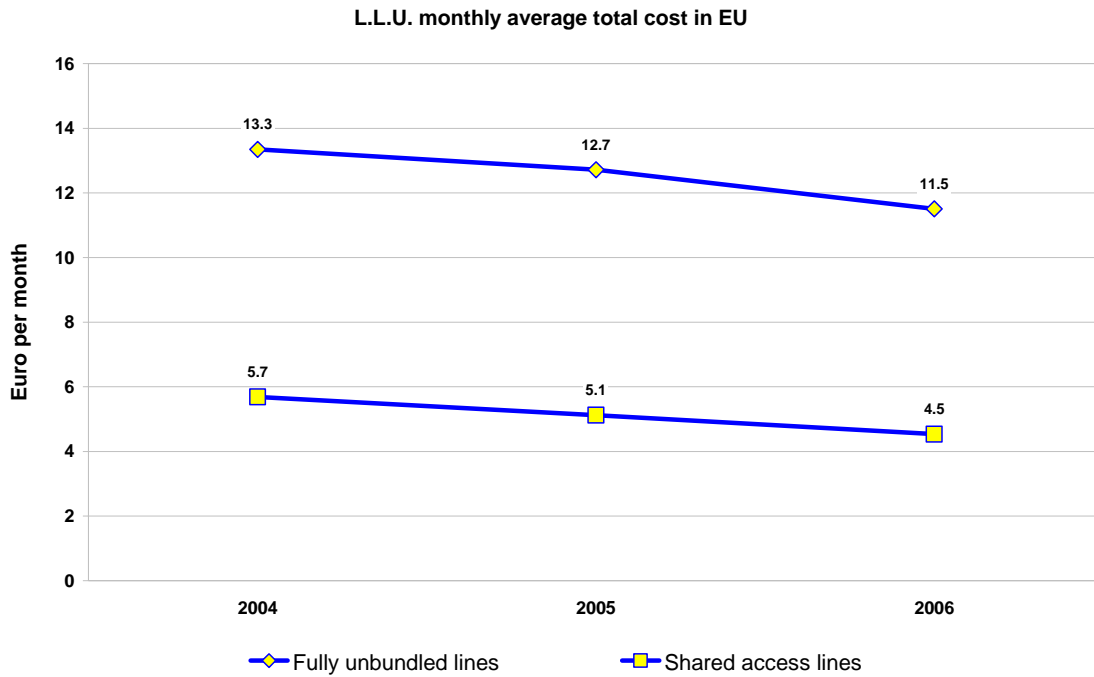
LLU pricing remains an important component in the strategy mix that influences the behaviour of alternative operators in infrastructure based competition. In principle, lower LLU fees create greater demand for access to the local loop (although provisioning and technical conditions remain important). For instance, partly thanks to a reduced monthly rental fee for full unbundling, France has added some 1.22m new fully unbundled lines since October 2005. Portugal, the Netherlands, Luxembourg, Denmark, Belgium and Austria have seen significant growth in the number of fully unbundled lines (on average between two and four times the number in October 2005), partly due to reductions in monthly rental costs.

Decreasing monthly rental fees for LLU have, for example, contributed to the emergence of fully unbundled lines in Slovenia, which, together with shared access lines represent nearly 10% of all DSL lines and make Slovenia, despite its small size, the top performer in absolute terms (with 16 814 lines) amongst the new Member States.

Significant decreases in monthly average total costs (connection fees over three years plus monthly rental fee combined) have fuelled the growth of shared access lines in the Czech Republic and Slovenia, whereas Italy and, in particular, the UK have drastically increased the number of subscribers using alternative DSL lines via shared access.

### Full unbundling

The EU monthly average total cost for full unbundling has decreased by € 1.2 since October 2005, which is more than in the period 2004-2005. Ireland and the Netherlands respectively remain the Member States with the highest and the lowest monthly average total cost for full unbundling. EU average connection fees for full unbundling decreased from € 77.9 in October 2005 to € 65.9 in October 2006. During the same period, monthly rental charges dropped on average from € 10.6 in October 2005 to € 9.7 in October 2006. The highest connection fees can be seen in Slovakia while the Netherlands remains the cheapest. Spain, Italy, Sweden, Malta and, in particular, Poland (due to the charging of an additional fee for technical information on the connection) have raised their connection fees since 2005. Monthly rental charges are highest in Ireland (€ 15.1), which has raised the price of rental compared to 2005, while Lithuania (€ 7.8) and Italy (€8.1) are the cheapest countries.



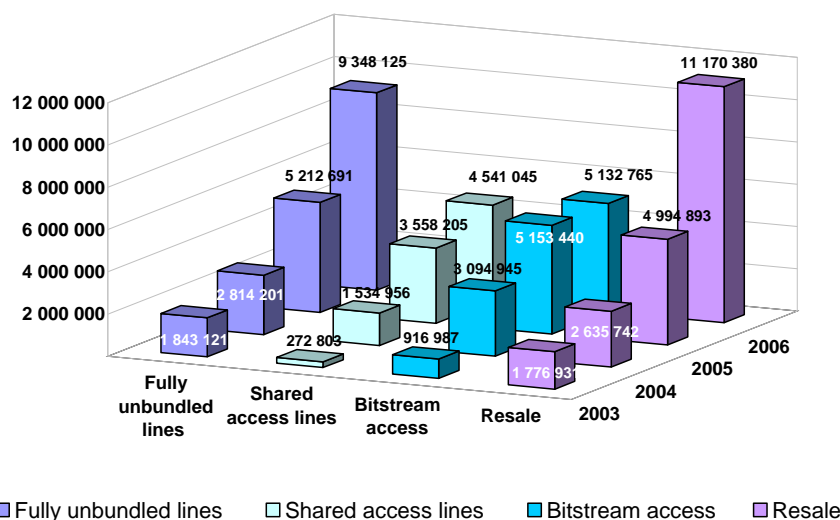
### Shared access

The EU monthly average total cost for shared access has fallen by € 0.6 since October 2005, in particular because of the 15% decrease in monthly rental charges. Average monthly rental charges have thus dropped from € 3.4 in October 2005 to € 2.9 in October 2006. Slovakia and the Netherlands remain the most and the least expensive countries respectively. On the other hand, connection fees for shared access (€ 59.7) have not changed on average compared to last year. Denmark, Spain, Malta and Poland have increased connection fees for shared access.

### **WHOLESALE ACCESS TO THE INCUMBENTS' NETWORKS**

New entrants, spurred on by adequate access price regulation, are climbing the ladder of investment by moving away from bitstream access (5.13 million lines) towards local loop unbundling (13.89 million lines) in the provision of broadband services.

Availability of wholesale access in the EU  
Incumbent's PSTN activated main lines (million): 184 450 569



LLU, which now represents 7.53% of the PSTN lines in the EU, provides 46% of DSL new entrants with access to broadband network. Fully unbundled lines increased by 79.3% over the year. Germany and France have been the principal contributors to the growth of full unbundling, while Italy, the Netherlands and Portugal have also played an important role.

Many operators seem to have chosen full unbundling over shared access, since this allows them to provide a full set of services (voice, data and video) independently of the incumbents. In addition, it allows alternative operators to provide single billing to their customers and permits market operators to modify the characteristics of the service in a competitive way. In shared access, France remains the country with the highest number of lines, while the United Kingdom in particular, Italy, Spain and Sweden all considerably increased the number of shared access lines in the space of one year.

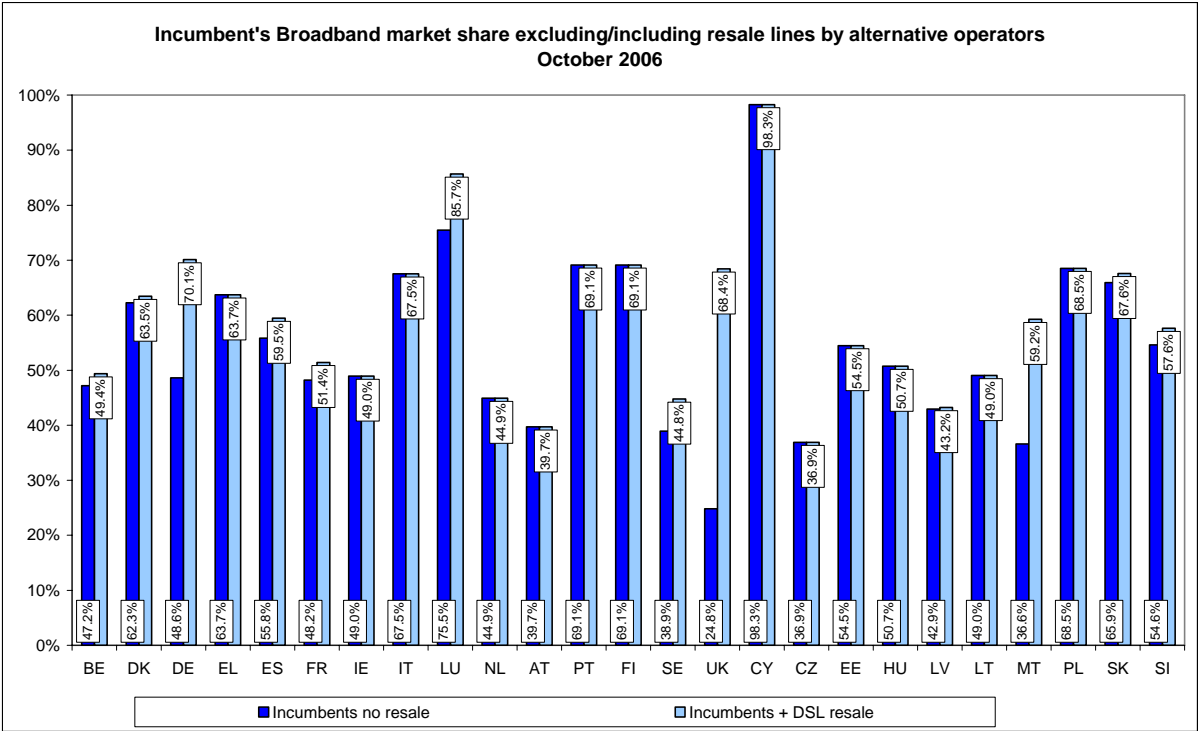
Bitstream has been stable and accounts for only 17% of alternative operators access lines in DSL. The United Kingdom, Belgium, Hungary, Ireland and the Czech Republic are the countries with the highest number of new bitstream lines in the course of one year, while France and Italy - despite a decrease in the number of bitstream lines - are still the countries with the highest absolute bitstream penetration.

Strikingly, new entrants have been particularly active in reselling the incumbents' DSL products (6.17 million new lines added compared to October 2005, which is equivalent to an increase of 123.6%) and account for some 37% of all new entrants' DSL lines. Resale continues to grow mainly as a result of the increase in Germany, where the incumbent reduced the prices of unregulated resale products; 1.8 million lines have been added to give a current total of 2.9 million DSL lines. In the United Kingdom, 4.3 million new lines - a development due mainly to falling prices<sup>16</sup> - pushed up the resale figures to 7.4 million lines.

However, resale - which in the main is still unregulated - is unlikely to provide a basis for sustainable competition. Moreover, it is perceived as a means by which incumbents exercise continued control over the end-users. This is becoming critically important in some Member

<sup>16</sup> It also appears that the figure reported by the NRA includes all new entrants' wholesale DSL connections, although it is impossible to estimate the exact share of bitstream and pure resale.

States. There are considerable differences in the incumbents' market share depending on whether DSL resale lines are included or not. For example, in the UK the incumbent's market share excluding resale lines is 24.8%, as compared with 68.4% including resale lines (a difference of 43.6 percentage points). In Malta the difference is 22.6 percentage points, in Germany 21.5 percentage points and in Luxembourg 10.2 percentage points.



The introduction of functional separation, as in the UK, could create more transparency, open up the infrastructure bottlenecks and ultimately generate a new wave of competition in the highly converged markets with strong incumbent control.

## TECHNOLOGY TRENDS

The electronic communications sector is characterised by rapid technological advances, which often present new challenges for the market and regulatory approaches. Many new technologies have significant potential and may well have strong economic and social impacts in the near future.

### WIRED TECHNOLOGIES

In most Member States, operators have started upgrading the existing infrastructure in order to be able to carry higher data rates and to supply converged products. Incumbent operators with legacy copper access infrastructure, and some alternative operators using wholesale access products, have started to adopt new DSL technologies.

Although over the past years DSL has grown in importance as the predominant broadband technology, there has been some investment - mainly led by alternative operators - in the other two main wired access platforms currently used, namely cable and, to a lesser extent, FTTH. Some analysts predict that the basis for competition will shift from the data rates and prices offered through the different platforms towards converged services and content.

Cable operators were the pioneers in providing entertainment services in conjunction with pure telecommunication services. Last year, cable market share fell very slightly, and the cable operators' main focus appears to be boosting revenues from new content-related services taking advantage of a platform fitted for media provision. In relation to fibre, following the initial investments made mainly by a number of alternative operators, public authorities and utility companies, some incumbent operators are also planning to deploy FTTH in the future, which would allow the provision of very high data rates with symmetric bandwidth.

### VoIP

Alongside the increased availability of broadband, VoIP services, whether provided through managed networks by operators or through unmanaged networks by using computer application programmes, are experiencing significant growth, mostly in enterprise but also in the residential segment. Alternative operators began offering this service to compete with traditional voice services, and incumbent operators have responded with their own offers. In an effort to overcome some of the disadvantages of VoIP versus traditional voice services, some companies are implementing a technology called "power over Ethernet", which would enable the provision of electrical power as well as data over existing Ethernet cables for powering IP telephone devices.

In February 2005, the Commission urged national regulatory authorities to take a "light touch" approach in order to allow innovative services and market structures to emerge. National regulatory authorities have adopted different approaches towards VoIP services in relation to a number of issues, such as consideration as traditional voice services, numbering, number portability, interconnection, quality of service, or provision of caller location information to emergency authorities.

There are different types of VoIP services: VoIP managed by the broadband access provider (called Voice over broadband or managed VoIP), VoIP managed by an independent voice service provider and VoIP as a usually free “personal voice application”. Currently, usage of VoIP is still limited but growing in several Member States. For instance, in a 2006 household survey, 10% of all German broadband customers stated they were using their broadband connection for telephony services. The figure was 14% for Finland and 10% for Luxembourg<sup>17</sup>.

### **WIRELESS LOCAL LOOP (WLL)**

Although DSL and cable technologies account for most of the broadband market share, wireless technologies may provide competition to the existing wired platforms, with the advantage in certain cases of offering mobility. For alternative operators this provides another way of access in addition to wholesale access to the incumbents’ networks. However, in a number of cases it is the incumbent or cable operators who have shown interest in WLL technologies in order to complement their existing offers from fixed networks. The deployment of wireless services will partly depend on the regulatory environment established by regulators, mainly the national spectrum policies.

Although the existing wireless technologies have not been extensively used to date, WiMAX technologies might have a larger impact in the market. WiMAX technologies might be used to provide voice and data services as fixed wireless access solutions, being especially attractive as a way of extending services to remote and sparsely populated areas, and to provide backhaul services as well as mobile wireless services, given that a new mobile standard has been developed.

As is the case with all wireless technologies, spectrum availability is essential for the development of WiMAX technologies. In July 2006, the French regulator auctioned spectrum on the 3.5GHz band, awarding 35 licences to different operators including some public authorities. Spectrum was auctioned in the same band in Germany in December 2006. Other Member States such as the UK are planning to assign additional spectrum during the coming year. In previous years, operators have conducted trial phases across the EU using “pre-WiMAX” equipment, and there are also currently some commercial services available, e.g. in Belgium, Denmark, Finland, Ireland, the Netherlands, Slovakia or the UK. In some Member States, such as the UK or Spain, operators have shown a renewed interest in existing licences previously awarded in those bands for other wireless services, which has prompted some merger and acquisition activity with companies holding such licences.

The role of radio spectrum in the electronic communications market has significantly increased and the Commission has been stressing the need to develop the European dimension and to coordinate the approaches for spectrum policy<sup>18</sup>. In November 2005, the Radio Spectrum Policy Group issued the Opinion on Wireless Access Policy for Electronic Communications Services (WAPECS) calling for action across Europe to allow more flexible use of radio spectrum for different electronic communications services.

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<sup>17</sup> Quoted in the i2010 Annual Report (March 2007)

<sup>18</sup> “Communication on a forward-looking radio spectrum policy for the European Union”, September 2005.



In the context of spectrum liberalisation, the Commission services are working closely with the Member States in the Radio Spectrum Committee to develop a Commission decision that would effectively replace Directive 87/372/EC (GSM Directive) and achieve a consistent approach across the EU for a more flexible use of the relevant frequency bands. In this connection, several Member States have announced plans to expand the usage of the radio frequency bands originally reserved for GSM technology by allowing 3G mobile technologies or even other technologies capable of providing electronic communications services in those bands.

## **MOBILE TV**

Operators are looking for new sources of revenue in mature mobile markets, and a number of trials carried out in the EU seem to confirm that there is demand for mobile TV services. Most subscribers are currently offered unicast audiovisual services over the 2.5G and 3G network. Moreover, mobile broadcasting services have recently been commercialised using DVB-H standard in Italy and Finland. In the future, mobile TV would benefit from more efficient transmission as a result of the evolution of 3G networks and the development of separate broadcasting networks, for which business models still need to be defined.

In some Member States, frequencies have already been assigned temporarily for trials or permanently. However, the availability of spectrum for further development of commercial services remains a key issue which could be delayed, depending on the standard and frequency band, until the switch-off of analogue TV release the 'digital dividend.' Another major issue, which will affect the development of these services and the launching of pan-European services, is interoperability amongst different networks and standards. The Commission plans to publish a Communication on Mobile TV by mid-2007.

# REGULATORY DEVELOPMENTS

## MAIN REGULATORY DEVELOPMENTS

At the heart of the 2002 regulatory framework for electronic communications lies the principle that undertakings should not be subject to *ex ante* regulatory obligations unless they have been found to be dominant in a relevant market, on the basis of a thorough market review by their national regulatory authority (NRA).

This **market review process** has made significant advances since the last implementation report. Most NRAs have now substantially completed the first round of market analysis and review of obligations and notified their results to the Commission and other NRAs in accordance with Article 7 of the Framework Directive. This has created a genuine body of know-how and experience which can be shared by NRAs across the Community.

In general, it is still **too early to make a definitive assessment of the effects** on the market of the regulatory obligations imposed as a result of the market review process, given that the practical implementation of the resulting obligations is still work in progress.

Indeed, in a number of Member States there have been **significant delays in the practical implementation of remedies, as well as divergence in the nature of the remedies chosen** following completion of the market analyses and findings of significant market power (SMP). These are key factors that in practice have restrained the framework from exercising its full effect.

**Delays can be caused by a variety of factors:** legal challenges (including appeals); procedural delays on the part of NRAs in imposing definitive remedies (for example, by adopting a completely different timetable for decision making on this issue); or insufficient detail in the formal obligations imposed. In the latter case, legal certainty and the ensuing demand from market entrants for regulated offers may not materialise until the details of implementation have been determined by other means, such as dispute resolution or a further phase of regulatory action by the NRAs. In either case, this can take months or even years. The Commission services regret the legal uncertainty and lack of consistency in the application of remedies across the Community that may result.

At the same time regulators need to strike a **balance between the level of detail** to be included in legally binding regulatory obligations (with all the complexity and administrative burden that this may entail) **and the simplicity** and ease of access to regulated products that is needed in order to ensure market take-up. Some elements of the implementation process are arguably more effectively dealt with by other, more flexible and consensual, methods.

In a further development of this more flexible approach, some authorities consider that the economic objectives of *ex ante* regulation can be best achieved by organisational changes to the regulated undertaking's business, in order to achieve genuine non-discriminatory access to its key infrastructure and to create clearer incentives for all parties. This approach has been seen in particular in the **functional separation** of the United Kingdom fixed incumbent's local access network from its retail and other businesses, which resulted from a process of

negotiation between the undertaking concerned and the United Kingdom's NRA. Similar organisational remedies are under consideration in Italy and Portugal (in the latter case as a condition to a takeover bid for the fixed incumbent).

Nevertheless such organisational approaches should go hand in hand with the effective implementation of other **clearly defined regulatory obligations** (such as non-discrimination, access and cost-orientation).

In general the majority of relevant markets reviewed by the NRAs to date have resulted in a finding of significant market power and the need to impose on the dominant operator(s) a range of obligations sufficient to remedy the lack of effective competition.

However, a core of markets can be identified in which the **removal of regulatory obligations** has been possible or where the relevant market has remained unregulated following a finding that the market was effectively competitive. In particular, findings of effective competition have been made in a number of retail calls markets in different Member States. The market for mobile access and call origination is also an example of a market where most NRAs have found that competition is effective. De-regulation can also take place where an NRA considers that, although the market is still not effectively competitive, market conditions and/or the availability of regulated offers elsewhere in the value chain have allowed scope to lighten the regulatory burden on the SMP operator.

A tendency can also be seen in some Member States, where the formal implementation process is perhaps more established, whereby a process of negotiation between the SMP operator and the regulator results in the latter offering **voluntary commitments** (e.g. with regard to the availability or pricing of specified products) as an alternative to the full application of the regulatory procedure. For example, this has happened on a number of occasions in the United Kingdom. It is also worth noting that Italy has adopted legislation enabling the NRAs to enforce voluntary commitments.

Although this approach has significant advantages in terms of flexibility, certainty and speed of application, care needs to be taken to ensure that the safeguards in the framework relating to **transparency and public consultation** are not undermined and that third parties do not feel excluded from the decision making process.

In general, the NRAs have consolidated their position and authority as the implementation process has unfolded and they have gained experience in the process of regulating the sector. The **independence of the NRA** from the ownership interests in the sector is now established in most Member States. However, this can still be an issue in some Member States, for example where the head of a regulatory authority can be (or even has been) replaced by the Government without explanation or reference to any pre-defined criteria. The dissolution of an NRA and/or the transfer of its functions to another legal entity without due explanation or justification would, in the Commission services' view, raise similar concerns in such circumstances. Finally, the view that a regulator must be free to carry out its tasks without **undue political interference** is gaining traction across the Community. This is an area where greater clarity in the regulatory framework could be beneficial.

An issue which arises from an overview of regulatory activity across the Community in the last year relates to the powers of the regulatory authorities to **enforce the obligations**

imposed on operators under the framework, and their effective use. The Commission is considering whether in some countries the level of the penalties which regulators can impose is sufficient to act as a genuine deterrent for large operators. In others, the effective use by the regulator of its enforcement powers may be open to question, whether due to the administrative burden that enforcement entails or a lack of confidence in the legal outcome following likely legal challenges. This would in particular be a problem where the original obligations imposed are not clear and precise enough to make them easy to enforce.

Although action has been taken in some Member States to address the procedural issues that have contributed to the length of **appeal processes**, this still can constitute a significant factor in delaying the practical effect of the framework in a number of Member States.

While at one end of the scale some NRAs still have work to do in defining and enforcing obligations arising out of the first round of market analysis, a number of regulators are beginning to address the issue of how **regulatory obligations will need to evolve** in order to resolve competition problems arising from the development of new technologies and new services. An example of this is the planned roll-out of **next generation networks**, based on IP protocols. Timely action is needed in this regard in order to ensure that all market players (not just the fixed incumbent) have the confidence to invest in new infrastructure and services, and can develop their business cases accordingly. The regulatory environment should adapt in such a way that access to the infrastructure needed to service markets which are not effectively competitive remains available at the appropriate level and that competing operators are not prevented from evolving to take advantage of the new opportunities offered (for example by allowing for migration paths to the new products). Initiatives to address these issues have been launched, for example, in France, Ireland, Italy, the Netherlands and the United Kingdom.

Over the reference period an increased focus by some NRAs on **consumer issues** has been apparent, particularly where the initial market review process has been substantially completed. Many of these consumer issues are perennial issues that nevertheless require renewed regulatory oversight and enforcement to ensure that competition is allowed to develop in an orderly environment. NRAs have taken initiatives, for example, to address the mis-selling of retail products, unlawful action to save or win-back consumers from rival service providers, issues of pricing and transparency in relation to calls to value-added or premium rate services, the publication of quality-of-service parameters and compensation mechanisms for failure to meet specified quality levels.

As competition intensifies in the retail broadband markets, operators have been seeking to gain competitive advantage and respond to demand by offering a full range of communications services to their customers, combining internet access and audio-visual (IPTV) services as well as fixed telephony and even mobile services in a single package. This **bundling of services** can raise concerns both for consumers and competitors where dominance persists in a given market, and is likely to be an increasing focus of attention for regulators and competition authorities in the future. The leveraging of dominance from one market into another associated market may extend to the exclusive acquisition of premium content for inclusion in audio-visual broadband or mobile services.

In general, regulators have not sought to impose **obligations on operators without using the processes and safeguards** provided by the regulatory framework, in particular the market

reviews conducted in accordance with Article 16 of the Framework Directive. However, the Commission is keen to ensure that this remains the case. For example, the Commission services are looking into a proposal from the Polish regulator to impose MVNO access on one mobile network operator as part of a dispute resolution procedure, without any corresponding finding of significant market power in the relevant market, as well as an obligation to meet reasonable network access requests attached to the right of use for radio frequencies of a 3G operator in Ireland.

## **REGULATORY ENVIRONMENT**

### **Transposition issues**

Transposition of the requirements of the EU regulatory framework into the national laws of the Member States was substantially completed with the adoption by Greece of the relevant primary legislation in February and June 2006.

However, it would appear to be the case that in a number of Member States the adoption of further secondary legislation or amendment of existing laws to refine and perfect the legal framework is still awaited. For example in Belgium part of the applicable secondary legislation is still based on the previous Telecommunications Act and needs to be updated (e.g. regarding the regulator's internal rules). In the Czech Republic the authorities are preparing secondary legislation for the further implementation of rules relating to 112 caller location information, numbering and the national frequency plan. In Greece, most of the necessary secondary legislation is still lacking (such as revised procedures for the grant of mast permits). In Hungary, repeal is still awaited of the secondary legislation which permits the fixing, without any prior market analysis, of maximum retail prices for access to internet services via the telephone network and for broadcasting services still has to be repealed.

On the other hand some Member States have already updated their legislation. For instance in Denmark the legislation governing appeal procedures has been amended, in line with Article 4 of the Framework Directive, to ensure that no automatic suspension of the regulator's decisions takes place on appeal. In the Netherlands, legislation concerning rights of way has recently been updated and improved, by providing for a structural separation between ownership and decision-making powers within municipalities providing electronic communications networks, coupled with restrictions on local authorities providing electronic communications networks without specific safeguards. In France, new legislation on consumer issues and broadcasting (digital switchover) is proposed.

In Germany the recently adopted amendment to the German Telecommunications Act would exempt new markets from regulation unless criteria more restrictive than those allowed by the Community framework are met. The Commission has expressed serious concern at this development.

## **New Member States**

In accordance with the Treaty of Accession of Bulgaria and Romania signed in Luxembourg on 25 April 2005, those two countries became Member States of the European Union on 1 January 2007.

### *Bulgaria*

In December 2006, Bulgaria notified its law on telecommunications of 10 October 2003, as last amended in June 2006. The Bulgarian authorities themselves consider this to be a partial transposition of the EU regulatory framework. The Commission is in the process of examining this measure.

During the accession negotiations, the chapter on electronic communications and information technology had been earmarked as an area where further progress was needed. Issues include, for instance, whether the national regulatory authority, a corner stone of the regulatory framework, had been given full capacity and independence to carry out its regulatory tasks; whether secondary legislation enabling market reviews is in place; and whether effective cost-accounting mechanisms, an important prerequisite for accurate and fair obligations, are in place. Bulgaria has not yet adopted a national broadband strategy.

To bring Bulgarian law into compliance with the EU regulatory framework, draft legislation is being debated in Parliament. In that context, regular exchanges have taken place between the Bulgarian authorities and the Commission. The Commission services will continue to monitor closely the progress made by Bulgaria.

### *Romania*

Romania had already adopted its primary and secondary legislation in the field of electronic communications on the basis of the 2002 regulatory framework. Law no. 304/2003 on the universal service and users' rights relating to electronic communications networks and services, Law no. 239/2005 on the amendment and completion of several normative acts in the field of communications, the Government Emergency Ordinance no. 79/2002 on the general regulatory framework for communications and the Government Ordinance no. 34/2002 on access to the public electronic communications networks and to the associated infrastructure as well as their interconnection, together constitute the core body of Romanian legislation for the electronic communications sector. So far the Romanian authorities have notified to the Commission national laws which they consider as constituting full transposition of the Framework, Access, Authorisation and e-Privacy Directives, whilst in respect of the Universal Service Directive only partial transposition has been notified.

Romania has not yet adopted its national broadband strategy.

As a result of the early transposition of the 2002 regulatory framework by Romania, market analysis of several markets was carried out before accession. As Romania was not a Member State at the time, the Romanian authorities could not notify the draft measures resulting from the market analysis to the Commission for comments as provided for by the 2002 regulatory framework. Consequently, in accordance with the 2002 regulatory framework Romania is

required to ensure that, as soon as possible after its accession and periodically thereafter, the NRA notifies draft measures to the Commission under Article 7 of the Framework Directive.

The Commission will closely follow Romania's implementation of the entire 2002 regulatory framework. Nevertheless special attention will be given to such issues as the independence of the national regulatory authority, implementation of the provisions on universal service and the completion of the market analysis process.

### **Organisation of the NRA**

In broad terms the NRAs across the Community are increasingly establishing a status and an authority consistent with the tasks assigned to them by the regulatory framework. However, there are a number of individual cases in which issues relating to their powers and objectives still have to be clarified. For example in Greece no NRA has yet been designated with competence to conduct the review of the broadcasting transmission market. In Spain, the CMT has appealed against certain legislative acts on the basis that these acts unduly limit its powers.

### **Powers and resources**

One of the key powers which NRAs need to have available in order to ensure that the national framework for which they are responsible is implemented effectively, and produces the intended results for competition and consumers, is the power to enforce their own decisions and the wider sectoral obligations. Yet this is an area in which issues are still apparent in many Member States. Unless consumers and market players are confident that obligations will be actively followed up and enforced by regulators, the safeguards for competition and consumer protection put in place by the framework will be deprived of much of their effectiveness.

In Belgium and Portugal questions have been raised concerning the NRA's exercise of its enforcement and fining powers in the event of breach, while in Ireland it would appear that the regulator's enforcement powers are limited and the absence of a credible threat of enforcement action, combined with the length of appeal proceedings, has delayed the practical effects of the regulatory decisions taken so far. In Malta the scope of the enforcement powers of the regulator with regard to access and interconnection disputes, and the low financial limits for fines are also open to question. In Italy the lack of deterrence in the level of financial penalties which the regulator can impose has been addressed by new legislation. Likewise in Estonia and Greece, where there are limitations on the powers of NRAs to impose financial penalties. The Commission services are looking into the question of whether the NRA in Slovakia has sufficient means to investigate whether reference offers are fully in line with the remedies imposed. In the United Kingdom the NRA's lack of power to impose interim measures in dispute resolution procedures limits their effectiveness in the eyes of alternative operators. In Finland and France, however, legislative amendments should strengthen the powers of the NRA, including in the area of consumer contracts. In Hungary the increasing imposition of significant fines by the NRA on operators who breach their regulatory obligations has been noted.

The issue of ensuring sufficient resources for the NRAs to ensure that they can carry out the full range of tasks conferred on them by the Community framework is still a factor in some

Member States. A lack of human resources is reported in several countries, such as Estonia, Greece and Italy. In Slovakia the NRA is seen to be suffering from a lack of resources in terms of both personnel and finances. In particular, it does not have its own dedicated financial resources, but is dependent on the Ministry's budget. In Sweden the agency with responsibility for consumer issues reported severe staffing problems as a result of its relocation.

## **Independence**

The effectiveness of a national regulator depends on both the perception and the reality of its independence from external influences that may affect the objectivity of its decision making and enforcement action. The notion of independence in this regard applies not only to the need for an arm's length relationship with commercial interests in the sector, but also to the need for transparency and impartiality in the exercise of its functions. One of the key means to achieve these objectives is the separation of regulatory and ownership functions within the administrative structures of the Member States. The Commission services are still looking into this issue in Luxembourg, Slovakia and Lithuania, and also in Austria in relation to the functions of government in the broadcasting sector.

Undue influence from political forces on the exercise of the regulator's responsibilities could also result in a breach of the impartiality and transparency requirements in circumstances where there is the potential of overlapping regulatory and ownership functions. In this regard, in Poland concerns have been raised with regard to independence and impartiality of the new NRA, particularly in the light of the abolition of its predecessor and the scope of the Government's ongoing powers of dismissal. The Commission services will consider this issue carefully, also in relation to other Member States.

## **Co-operation with National Competition Authorities**

Member States must ensure consultation and cooperation between the NRA and the national competition authority on matters of common interest. In several Member States, this cooperation follows a specific protocol signed between the different authorities. However, the division of tasks and responsibilities (e.g. ex ante versus ex post regulation, settlement of price squeeze issues and complaints) appears not to be clear in certain cases (Luxembourg, Malta, Slovenia). Close cooperation is also needed between the two authorities in the context of merger cases, where the NRA may be requested by the NCA to provide an opinion on the impact of a merger in the regulated electronic communications sector (e.g. France, Portugal).

## **Dispute Resolution**

With respect to the resolution of disputes arising between operators, NRAs have to issue binding decisions within a maximum timeframe of four months in accordance with Article 20(1) of the Framework Directive. While in some countries (e.g. Sweden, United Kingdom) disputes are generally resolved within the four-month deadline set by the Directive, a number of Member States exhibit different trends. Where proceedings are lengthy and decisions do not really meet market and business needs, operators tend to abandon dispute resolution in favour of other mechanisms. Concerns in this regard have been expressed in Belgium, Italy, and Slovakia. In some cases, the NRA might not be inclined to intervene, given the resources it would need in order to do so. Dispute resolution also becomes effective when the NRA is able to enforce its decisions whenever necessary. The Commission is examining whether this



is the case in Ireland. Examples of robust and effective decisions have been reported in Spain (NRA decision of November 2006 fining the incumbent for voluntary obstruction of new entrants' services) and the Netherlands (NRA decision of November 2006 imposing administrative penalties on the incumbent and granting compensation to individual operators).

However, NRAs may decline to resolve disputes (for a certain time) when there are alternative dispute resolution mechanisms, e.g. mediation that would be more effective in helping to resolve the dispute (Article 20(2) of the Framework Directive). At this stage, much can depend on the NRA's ability, de jure or de facto, to intervene as a mediator in order to prevent disputes arising between operators. Sometimes a swift decision on interim measures may also suffice. The clear determination of the NRA to encourage market parties to consult each other or to apply informal mediation procedures before moving to formal dispute resolution may also reduce the number of disputes to be dealt with (Netherlands, Hungary and Slovenia). It is also worth mentioning that operators can use more informal mechanisms to report their positions to the NRA (Portugal) and that associations of operators may provide internal mechanisms for dispute resolution before referring the case to the NRA (Czech Republic).

## **Appeals**

The right to effective judicial protection - one of the fundamental principles of the Community legal order - is embodied as regards the field of electronic communications in Article 4 of the Framework Directive. Under this provision, effective mechanisms must exist at national level in order to ensure that any user or undertaking providing electronic communications networks and/or services, affected by a decision of a NRA, has the right to appeal against that decision.

The large number of appeals and the length of the proceedings are still seen as a major issue in many Member States. This is the case, for instance, in Italy and Portugal, where appeals may often take four to six years or more to complete. In Greece the highest administrative court has not issued a single decision, and some decisions are still pending since 2001. Such delays mean that operators can avoid complying with their regulatory obligations. A review of the appeals procedures (Ireland) or a reform of the judicial system (Portugal) or possibly granting judicial competence to another appeal court (Greece) could improve the situation, but the effects have still to be examined. Lengthy procedures may also produce a system, as in Italy, in which urgent provisional measures may be requested and are often granted as a remedy to alternative operators who are dissatisfied with the way the NRA is dealing with the incumbent's practices. Limitation of the appeal proceedings to one instance (or two instances down from three, like in Sweden) would help by reducing the length of time involved.

In some Member States, market review decisions are systematically appealed, which reduces legal certainty and commercial predictability in the market (e.g. Belgium, Italy, Cyprus, Hungary, Netherlands, Poland, Slovakia and Sweden). Repeated and systematic recourse to appeal procedures, often used by operators against all types of decisions, may also lead to a regulatory environment that maintains the status quo and de facto favours the position of the incumbent or other designated SMP operators.

In principle, NRA decisions must stand pending the outcome of the appeal, unless the appeal body decides otherwise. However, in some Member States the NRA decision is suspended

when the appeal is against the imposition of a fine or sanction (Belgium, Poland). In Portugal, the decision stands when the NRA submits a statement that non-implementation of the decision would affect the public interest. In two Member States (Czech Republic and Slovakia), decisions normally stand when they are challenged at the level of the court but suspension is automatic when the appeals are lodged internally (at the level of the board of the NRA) against a first instance decision adopted by an internal department or by the NRA chairman. The Commission will examine whether this provision is in line with the requirement of the regulatory framework. In several Member States, legal rules or court practices have been amended and automatic suspension of the NRA decision in the event of appeal is no longer applied (Denmark, Lithuania, Austria and Poland). In Poland however, it appears that decisions (other than those imposing fines) can no longer be suspended by the appeal body, since they are given immediate effect by law.

As part of the ongoing review of the regulatory framework the Commission is examining how to make appeal procedures run more smoothly, including how the option for suspension of decisions on appeal can be clarified, so that it occurs only when the proper administration of justice would otherwise be undermined.

When issuing a judgement, the appeal body must take into consideration not only formal elements but also the merits of the case. In several Member States, NRAs and operators point to the necessary expertise required from appeal judges to deal with complicated electronic communications matters. Solutions put in place by Member States might take one of several forms: designation of a specialised appeal body (United Kingdom), designation of more and specialised judges (Poland) and the training of judges (Poland). The Commission services also organise seminars for national judges on a regular basis, in order to promote best practice across the Member States.

Another issue in some Member States is the effective right of third parties affected by a decision of an NRA to appeal against that decision. The Commission considers that the concept of undertakings “affected” by a decision within the meaning of Article 4 of the Framework Directive goes beyond the addressee of the decision. Specific cases include Sweden, where a decision may only be appealed by the person whom it “concerns” (which in Swedish law appears to be a narrower concept than “affected”), unless there are specific regulations or statements setting out that interested parties should be given an opportunity to respond or that certain interests should be taken into account. A similar issue has been reported in Belgium, where in several cases parties other than the addressee in several cases have not been allowed to appeal against an NRA decision, or to intervene in an action brought by the incumbent (related to the incumbent’s reference offer). The appeal court considered that competing operators are not directly and individually concerned by the NRA decision as is required by general procedural law.

In three cases, the issue of the right of appeal for third parties has been referred to the European Court of Justice for a preliminary ruling.<sup>19</sup> The Commission considers that it is not

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<sup>19</sup> In case C-426/05 (Tele2 UTA Telecommunication), an Austrian administrative court has asked the ECJ for an interpretation of the term “parties affected”, by submitting the question whether it includes competitors operating on the relevant market in respect of which specific obligations are not withdrawn or modified as a result of a market analysis procedure. A German administrative court requested an interpretation of the term in the context of a third party appealing against a decision concerning cost oriented tariffs (case C-55/06, Arcor). In a third case, the ECJ has received a preliminary question about

possible to give a general answer to the question of who, other than the addressee, is affected by a decision of the NRA. Instead, each individual situation has to be closely examined with respect to the rights of the undertaking concerned, its specific relationship with the undertaking which is directly concerned by the NRA decision (e.g. by an SMP designation) and the content of the decision. Article 4 of the Framework Directive seems to cover a wide range of NRA decisions and should therefore apply at least to a competitor which has established, vis-à-vis the addressee of the decision, contractual rights which are directly based on SMP obligations previously imposed on the addressee.

## **Decision making**

The first round of market analysis and review of obligations following the date of application of the regulatory framework for electronic communications has now been substantially completed across the Community, with most NRAs having notified the Commission and other NRAs of their proposals with regard to all but a few of the 18 relevant markets identified in the Commission Recommendation<sup>20</sup> on relevant markets. The second round of market reviews has already begun in some Member States (e.g. Slovenia, Hungary, Finland and the United Kingdom).

While the progress made in 2006 towards completing the first round of market reviews represents a major step towards the goal of ensuring a fully functioning regulatory framework which guarantees a common set of principles consistently applied across the Community, it is not sufficient in itself to achieve that goal. It is also essential that NRAs follow up with the rigorous implementation and enforcement of the remedies adopted as a result of the market review process. For example, in Portugal the publication of the leased lines reference offer took place a full year after the relevant markets were reviewed and the wholesale line rental offer did not become available until one and a half year after it was mandated. In a number of Member States the practical implementation of the remedies selected still remains to be addressed. For example in Cyprus all but one of the market reviews had been completed by 1 November 2006, but remedies had been imposed in only four markets.

In some cases the level of detail provided in the notified measures is not sufficient to ensure the legal certainty and transparency needed to implement remedies effectively and so create positive effects in the market. As an illustration, cost orientation obligations are of limited use unless they are backed up by a rigorous and transparent cost accounting system/methodology and certified by an independent entity. Similarly, where reliable and validated cost accounting information is lacking, allegations of the existence of a price squeeze are more likely to arise and to be more difficult to disprove. The absence of such cost orientation systems or delays in their certification continue to be an issue in the Czech Republic, Italy and Luxembourg.

There are nevertheless encouraging signs that where remedies are mandatory on a finding of significant market power, a consistent pattern of implementation is beginning to emerge

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the extent of the right of appeal of a third party with respect to a Finnish NRA decision adopted as a result of a market analysis (C-366/06, Verkot).

<sup>20</sup> Commission Recommendation of 11 February 2003 on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services (OJ L 114, 8.5.2003. p. 45).

across the Member States. Carrier selection and carrier pre-selection<sup>21</sup> are now available by law across the whole EU25, even if issues over the conditions for their provision persist in some Member States.

In some cases, delays in the NRAs' decision-making can be attributed in part to the lack of a clear division of responsibilities. For example, in Belgium, the implementation of broadband and broadcasting related remedies (including with regard to LLU) has been delayed by the complex division of responsibilities between the federal and regional regulatory authorities. Co-operation between these authorities on matters of shared competence has been established by the signing of a co-operation agreement. Similarly, in Greece, the task of analysing the broadcasting transmission market has not yet been assigned to an NRA. In Germany, the separation of the decision making on remedies from the process of market analysis has created legal and commercial uncertainty, as well as contributing to delays in some cases.

A necessary pre-condition for effective decision making is the process of public consultation and, in appropriate cases, consultation of the Commission and other NRAs which is provided for in Articles 6 and 7 of the Framework Directive. This ensures that the interests of all interested parties are duly taken into account. Real consultation involves more than merely following the procedural formalities provided by a consultation process, it also involves a genuine openness on the part of the NRA to adapt its proposal where new facts or considerations are brought to its attention. Concerns have been raised to varying degrees by market players in a number of Member States that the views of interested parties have not been genuinely taken into account. The Commission services consider that this is a matter that requires ongoing attention by all NRAs, even if it has to be acknowledged that perceptions can often be subjective in this area. The Commission services do, however, note with approval the practice of some NRAs to explain systematically in the documentation following up on a public consultation what the primary comments have been and how they have taken them into account in reaching their final decision. The Commission continues to believe that national consultation procedures should be carried out before the Commission and other NRAs are consulted under Article 7 of the Framework Directive.

The Commission services closely monitor the final stages of the decision making process that follows consultation by NRAs under the procedures in Article 6 and Article 7 of the Framework Directive. In particular, the Commission reserves its right to take infringement proceedings under Article 226 of the Treaty where the Commission has expressed concerns that core principles of the framework may be violated by a notified draft measure and where those concerns are not taken into account by the NRA in adopting its final decision. The Commission is also concerned that there should be no unjustified delay in an NRA completing a market review where a notified draft measure is withdrawn as the result of the exercise of the Commission's veto under Article 7(4) of the Framework Directive.

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<sup>21</sup> To be imposed if SMP is found on the market for the provision of connection to and use of the public telephone network at a fixed location.

## **IMPLEMENTATION OF REGULATORY MEASURES BY SECTOR**

Effective implementation of remedies imposed following the market reviews and finding of significant market power is a key factor in fostering competition. In the following sections the main implementation issues are dealt with by market segments.

### **Broadband Implementation**

Many regulators have required the publication of reference offers by SMP operators in the local loop unbundling (LLU) and wholesale broadband access markets. A range of issues with the implementation of reference offers have arisen in many Member States (pricing, service level agreements, collocation, migration between products or number portability).

The availability of effective dispute settlement procedures is a key factor in giving new entrants the confidence to invest. For example in Spain the regulator has created a monitoring unit to follow-up disputes in relation to the Reference Unbundling Offer (RUO). In the United Kingdom, the Telecommunications Adjudicator - who is independent of regulator and industry - has continued to play a key role in streamlining non-discriminatory LLU processes and overcoming practical obstacles to high volume take-up.

The availability of wholesale access products differs from country to country. In those Member States where there is choice between various levels of wholesale access, alternative operators are able to combine them and gradually invest in their own infrastructure. The Italian NRA has imposed the obligation on the incumbent to provide bitstream access at local exchange level (DSLAM) on sites not open to LLU. In Germany, an IP bitstream offer was not mandated until 2006 and a draft measure governing ATM bitstream was expected in January 2007; neither measure has yet been implemented. In Estonia, delays in the market review process have led alternative operators to turn to alternative platforms (fibre networks, local area networks and cable). It is to be regretted that a functional bitstream access offer from fixed network operators with SMP is not available on a more consistent basis across the Community.

There is evidence of an increased focus by some regulators on the potential for different competitive conditions to apply in different geographic areas within their territory, thereby offering the prospect of differentiated remedies. For example in November 2006 the United Kingdom regulator submitted to public consultation a document reviewing the wholesale broadband access markets, in which the areas covered by local exchanges are regarded as geographical units.

It is also important that NRAs address the relationship between different regulated wholesale products when deciding on remedies, particularly with a view to facilitating migration between different regulated products. In this regard the relationship between the pricing of different products is clearly a key factor. In Greece, implementation of cost orientation for the incumbent's bitstream offer has been delayed because of delays in the provision of accounting information to the regulator. Some countries, such as Czech Republic, Austria or Slovakia have reported problems in the take-up of regulated access products due to the lack of a clear framework for the pricing of those products.

In most Member States, the major operators are facing a situation where networks need to be upgraded. This results in new regulatory challenges, particularly for the fixed access networks where many alternative operators have based their operations on regulated wholesale access to the networks of SMP operators. Many incumbent operators are planning or have already started deploying fibre in the access networks, either fibre to the node (FTTN) to provide VDSL services or fibre to the home (FTTH) directly reaching buildings or customers. Regulators need to define their approach to regulation of these new infrastructures where dominance already exists in the relevant markets.

In this context, concerns have been expressed by the Commission about a legislative amendment adopted by Germany in December 2006, under which new markets (possibly including those based on the incumbent's new VDSL network) may be exempted from regulation unless certain conditions, which go beyond those in the EU framework, are met. The Commission announced that it would launch an infringement proceeding as soon as the German law was adopted. On the other hand in the Netherlands, the NRA has consulted stakeholders on the regulatory issues surrounding the planned roll-out of the incumbent's IP-based network by 2010, and in October 2006 issued a document stating its proposed positions and the follow-up steps considered necessary. Moreover, the Dutch incumbent has voluntarily published an offer. Also, in the United Kingdom the regulator has submitted for discussion with industry a document on the regulatory challenges posed by next generation networks.

As the importance of broadband for economic development and social cohesion has become clearer, there has been a corresponding increase in the number of initiatives by national and local authorities to ensure the availability of broadband infrastructure in their regions. This has taken place either through the establishment of publicly owned enterprises engaged in the provision of electronic communications infrastructure or through the financing of such provision from public funds. While there is clearly a role for government action where market forces are insufficient to ensure that the necessary investment takes place (for example in remote or sparsely populated areas), it is important that the scope for the market to achieve the same result is not unduly restricted or competition distorted. A key requirement in this regard is that, where public funds are used, a convincing economic justification for intervention is provided and the principle of open access to the state-funded infrastructure for competitive operators is guaranteed. In this respect, the Commission declared for the first time that a subsidy for a broadband network was incompatible with the state aid rules<sup>22</sup>, as the area was already served by other broadband networks. In February 2007, the Commission invited applications from public authorities to exhibit broadband projects that constitute good practice at regional and local level in the context of the Conference on "Bridging the Broadband gap: Benefits of broadband for rural areas and less developed regions" which will take place in May 2007<sup>23</sup>.

### **Mobile Implementation**

No mobile retail markets are included in the Commission Recommendation on relevant markets; therefore regulation for mobile markets is applied only at the wholesale level. The market for access and call origination on public mobile telephone networks has been generally found to be competitive and any existing regulation was consequently withdrawn.

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<sup>22</sup> FTTH network in Appingedam (Netherlands), Press release of 19 July 2006 (IP/06/1013).

<sup>23</sup> [http://europa.eu.int/information\\_society/events/broadband\\_gap\\_2007/index\\_en.htm](http://europa.eu.int/information_society/events/broadband_gap_2007/index_en.htm)

As regards the market for termination on public mobile telephone networks, regulatory intervention is the rule since all mobile operators have been found dominant in terminating calls onto their own network. As a consequence there have been further decreases in mobile termination rates in many Member States. Several NRAs have determined asymmetric rates, to take into account the different dates of market entry.

Although the Commission Recommendation on relevant markets identifies the wholesale national market for international roaming on public mobile networks as a market susceptible to ex ante regulation, the cross-border nature of international roaming services has made it difficult for Member States to regulate these services at national level.

This gave rise to calls, from NRAs and more widely, for action at EU level to address the problem of the persistently high retail prices paid by mobile users for calls made and received within the Community. Despite initiatives to increase the transparency of roaming tariffs, including the launch of a consumer website by the Commission, roaming prices remain significantly higher than the equivalent prices for domestic mobile calls, without justification by reference to underlying costs.

Consequently, in July 2006 the Commission adopted a proposal for a regulation on roaming on public mobile networks within the Community and amending Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services.

In the wholesale market, the proposed regulation establishes a maximum price that one operator may charge another for handling roaming calls, fixed by reference to different multiples of the EU average mobile termination rate, depending on the nature of the call. The regulation also states that the retail prices that mobile operators may charge their customers for making and receiving a call while roaming may not exceed 130% of the applicable wholesale rate for that type of call. The proposed regulation is also designed to enhance price transparency, which has been a major problem with roaming.

The proposal is currently being discussed in the Council and in the European Parliament.

### **Fixed Implementation**

Although incumbent operators generally retain a large share of the fixed markets (65.8% on average in terms of retail revenues), there is a slight trend towards de-regulation in this segment of the electronic communications market in some Member States.

Carrier selection (CS) and carrier pre-selection (CPS) - key building blocks for competition in the fixed market - are now available by law in all Member States and represent a major contribution to competition generally. However, in some Member States (Latvia, Malta, and Slovakia) the terms on which it is offered means that take-up remains minimal. In some countries, such as Greece and Portugal, regulators have tackled “win-back” practices by mandating standstill periods to prevent the incumbent from contacting customers who have transferred to alternative operators.

Most regulators have obliged operators found to be dominant in the relevant fixed markets the obligation to publish a reference interconnection offer (RIO) based on a fixed price per

minute. However, a capacity-based interconnection model<sup>24</sup>, in addition to the meter-based interconnection model, has been available in Spain since 2001. This has proved to be very successful as it allows better demand planning by the incumbent and allows alternative operators to route more minutes at lower unit cost. During 2006, the Polish regulator UKE introduced capacity-based interconnection as an obligation on the incumbent operator, and the Portuguese NRA ANACOM approved the modifications of the RIO in order to introduce capacity-based interconnection.

With the growing number of bundled offers in which fixed voice is increasingly offered as a service in addition to broadband and/or TV services, regulators are facing a challenge as in many instances offers combine regulated and unregulated services, with the risk that SMP operators may leverage their dominance in other markets. For example, in Luxembourg, difficulties have been reported in replicating an incumbent's bundled product due to the lack of a wholesale line rental offer from the incumbent, Estonia has also reported problems with bundled offers.

The regulatory approach to VoIP services differs across the EU with a number of issues being tackled or still to be resolved by the NRAs, such as whether those services qualify as "publicly available telephone services" (PATS) for the purposes of their regulatory treatment, numbering, number portability, interconnection, quality of service or provision of caller location information to emergency authorities. A positive example is Italy, where the regulator has imposed a new obligation on all operators to negotiate direct IP interconnection in order to guarantee full interoperability of VoIP services.

### **Broadcasting Implementation**

The division of competences between different authorities can restrict the effective analysis of the market for broadcasting transmission services. In at least two Member States (France and Poland) the regulators decided that they are not competent to regulate access to transmission networks for broadcasters, limiting their analyses to the relations between broadcasting transmission undertakings. It is to be noted that the broadcasting transmission market, as explained in the Recommendation on relevant markets, comprises commercial relations where providers of broadcasting transmission services offer broadcasters the delivery of content. Member States should therefore ensure that there is a body competent to analyse and regulate that (part of the) relevant market if necessary.

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<sup>24</sup> In the capacity-based interconnection model an operator may contract certain capacity from the dominant operator at a specific point of interconnection paying a fixed cost, regardless of the traffic minutes actually routed.



## Digital terrestrial TV

As far as the deployment of digital television is concerned, whereas the digitisation of satellite and cable TV is believed to be mainly market-led (with more distant prospects for the switch-over in the case of cable), the transition from analogue to digital transmission in the case of terrestrial TV requires a more coordinated approach. This is due to such factors as lack of spectrum in certain areas, the cost of achieving wide coverage, relatively limited network capacity and competing TV offers already in place. At the same time, additional spectrum capacity released by terminating analogue terrestrial television may bring a significant economic benefit for the market. In a Communication related to this subject<sup>25</sup> the Commission invited Member States to establish switch-over strategies and later<sup>26</sup> proposed 2012 as a recommended date for analogue switch-off in the EU. Most Member States expect to meet this deadline; for the time being only Poland has indicated 2015 as the switch-off date (an earlier date may be possible depending on market developments). A few Member States (Estonia, Ireland and Portugal) have not yet finally decided on the analogue switch-off date. On the other hand, switch-off in the Netherlands already took place in December 2006.

The deployment of digital terrestrial TV (DTTV) varies considerably across the EU. In some Member States a commercial offer for DTTV has been available for many years and countries like Finland or the United Kingdom have relatively high DTTV penetration rates (33.1% and 23.3% respectively in September 2005 according to Dataxis<sup>27</sup>). In contrast, in six Member States (Cyprus, Hungary, Ireland, Poland, Romania and Slovakia) the commercial provision of DTTV services either has not yet been launched or is not fully operational.

Member States have taken a number of initiatives to assist and to encourage the transition to digital terrestrial TV. While recognising that in some cases digital switch-over may be delayed if left entirely to market forces and that public intervention can be beneficial, in some cases there may be concerns with regard to potential state aid. Under Community law, any state aid must be based on objective criteria, address specific issues where the market does not provide solutions, be limited to the minimum necessary and avoid distorting competition unduly, particularly as between different delivery platforms.

In addition, some Member States seem to accord specific treatment to public service broadcasters (PSBs). PSBs would normally have a guaranteed listing on a multiplex operated by another party or they are granted the frequency for a whole multiplex (as in the Czech Republic, Finland, Germany, Spain, Sweden and the United Kingdom) for up to 6-8 channels<sup>28</sup>. In at least four Member States (Germany, Italy, Spain and the United Kingdom) it was decided to reserve radio frequencies for assignment to current commercial broadcasters. The Commission services are examining the policy objectives at stake and whether the preferential treatment of some broadcasters is proportionate to the objectives pursued.

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<sup>25</sup> Switchover communications of 2003; COM (2003) 541

<sup>26</sup> Communication of 2005 on accelerating the transition from analogue to digital broadcasting; COM (2005) 204

<sup>27</sup> Dataxis, Digital television data; EU market for digital television", 2006

<sup>28</sup> Using the compression standard – MPEG2. MPEG4 standard makes it possible to double the efficiency of compression.

According to the Authorisation Directive, when assigning frequencies for any purpose, including for the transmission of broadcasting content, Member States have to follow open, transparent and non-discriminatory procedures. Selection criteria have to be objective, transparent, non-discriminatory and proportionate. However, the Directive is without prejudice to specific criteria and procedural requirements applied by Member States when assigning radio frequencies to broadcast content providers with a view to pursuing general interest objectives and in conformity with Community law. The process of granting frequencies to broadcasters should be as open, transparent and non-discriminatory as possible while meeting the general interest objective pursued. Any divergence from those principles has to be weighed against the identified general interest objective(s) and needs to be proportionate.

## THE CONSUMER INTEREST

### TARIFF TRANSPARENCY

The Universal Service Directive requires Member States to ensure that transparent and up-to-date information on applicable tariffs and on standard terms and conditions relating to publicly available telephone services is available to customers and end-users. Furthermore, the national regulatory authorities are encouraged to provide and promote the use of consumer tools enabling independent evaluation of costs and services, for instance by means of interactive tools.

The Commission notes the proactive approach taken in many Member States towards ensuring a higher level of consumer protection and information awareness. Most notably, a variety of web-based comparative information tools are offered to customers and end-users in order to facilitate the information flow and broaden their consumer choice.

In Estonia, for example, the NRA has developed a web-based price comparison service, which enables consumers to calculate and choose the best suitable offer on the market on the basis of the tariffs of all public telephony operators. The Portuguese NRA set up an online observatory of mobile prices which serves as a practical customer consultation tool by simulating their traffic profiles. The Belgian regulator has been active in establishing a tariff simulator, allowing customers to make quantitative and qualitative comparisons of tariffs. The simulator is expected to be available on their website in 2007.

Several Member States have gone a step further and also included other services in their interactive tools in order to provide more comprehensive information. The Irish NRA expanded its mobile tariff comparison internet site to include fixed and broadband services. Similarly in Slovenia, the tariff transparency interactive project includes mobile, fixed and broadband offers. A price comparison database in Sweden includes fixed, mobile and internet services. The Hungarian consumer choice and price comparison information system entails fixed, mobile, broadband and also cable services. The Belgian project envisages including broadband and triple-play, while the Portuguese NRA indicated a future upgrading of its service to broadband.

The projects described above stem from public initiatives. However, the Commission also notes similar initiatives by commercial players. On the basis of an initiative from the United Kingdom's NRA, a number of fixed service providers launched an independent website to provide users with comparative information on quality of service. Moreover, the United Kingdom's four GSM operators have launched a website providing independently commissioned comparative information on their voice quality and network performance.

The developments in the approaches of both the regulatory authorities and market players described in the best practice examples above indicate that transparency of consumer-related information is increasingly regarded as an additional tool to facilitate further effective competition on the electronic communications market.

## **Consumer Perception**

The Commission conducted several surveys of consumer satisfaction with services of general interest in 2006, including broadband connection, fixed and mobile telephony<sup>29</sup>. While all these services are perceived as “very” or “fairly” important in consumers’ daily lives, fixed telephony is considered still more important (75%) than mobile telephony (69%) and the Internet (45%).

Regarding transparency, the pricing used by service providers makes the comparison of offers by different providers very difficult for consumers. For example, evidence shows that a rather high percentage of consumers (38%) admit that they have difficulties in comparing the offers of different mobile providers.

In addition, there is evidence that consumers are not taking advantage of beneficial offers and in some cases even switching to higher-cost providers. In mobile telephony, only 20% of consumers have switched and found the experience to be easy whereas in fixed telephony 16% switched and had an easy experience. For both services, 8% of consumers had problems when they tried to switch. Terms and conditions for mobile and fixed telephony are generally seen by consumers as “fair” with the EU25 average at 63%. However there is a considerable percentage of consumers, almost one in three, who think that these are “unfair”.

## **UNIVERSAL SERVICE**

### **Scope**

The Universal Service Directive defines universal service as a minimum set of services to be ensured by Member States, of specified quality and available to all end-users within the territory of a Member State, irrespective of their geographical location and at an affordable price, without distorting competition.

Within this definition, there are currently four basic elements to the universal service. First, there is the provision of access at a fixed location, enabling the users to make and receive local, national and international telephone calls and fax communications, and have functional Internet access. Second, there is the requirement to make available at least one comprehensive directory and one comprehensive directory enquiry service comprising all subscribers who wish to be included, regardless of whether these are fixed or mobile numbers. Third, there are requirements governing the availability of public payphones. Fourth, there is provision for Member States to take appropriate specific measures to ensure access to and affordability of the same services for users with disabilities and special social needs.

### **Designations**

Where the minimum set of services is not provided at an affordable price by the commercial environment, Member States may designate one or more undertakings to provide these elements in part or all of the territory. Moreover, different undertakings may be designated for the provision of different elements. Details of the designation mechanism are left to the discretion of the Member States. However, the procedure applied must be efficient, objective,

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<sup>29</sup> Special Eurobarometer 65 on Service of General Economic Interest, March 2007

transparent and non-discriminatory, so that no undertaking is excluded a priori. Primary or secondary legislation on the designation mechanism must therefore follow these rules.

During the reporting period several Member States have designated universal service providers under the new framework. The Czech Republic, Estonia and Poland have all used an open tender procedure for the designation mechanism, which raises the total number of Member States using this type of mechanism to six (previously also Cyprus, Hungary and Slovenia). Ireland, the United Kingdom and Slovakia carried out the designation following a public consultation procedure. Such designations stand in contrast to the situation in Latvia, where the incumbent appears to be simply re-designated on an annual basis in the absence of the designation process envisaged by the EU regulatory framework.

There are still a number of countries where the incumbent is providing the universal service on a transitional basis. Spain and Denmark, for example, indicated that new designation will take place during the next reporting period.

As to the outcome of the new designations, the incumbents are by far the most commonly designated undertakings. The exception is Estonia, where an open tender brought in a new entrant as the designated undertaking. In other countries, such as the Czech Republic and Belgium, other operators have been designated alongside the incumbent to provide tariffs for people with special social needs.

There is therefore ample scope for further involvement of other market players in the provision of universal service. Since the Directive allows more than one undertaking to be designated to provide universal service in its different elements or in different parts of the territory, there is a possibility for the Member States to include interested new entrants in the provision of these services.

Member States may decide not to designate a universal service provider if the market is able to provide the elements of the universal service commercially at an affordable price and specified quality. Two Member States, namely Germany and Luxembourg, are currently exercising this option fully. It is necessary to emphasize that close monitoring of the provision of these services should be maintained in cases where there is no designation for a part or all of the universal service.

Several other Member States opted to withdraw certain elements from the scope of the universal service on the basis that these are provided commercially by the market at a level satisfying the requirements of the Directive. The Czech Republic has withdrawn the provision of access at a fixed location from the scope of the current designation. In Estonia, a comprehensive directory and directory enquiry service, and the availability of public payphones, are no longer part of the universal service. This is also the case for comprehensive directory enquiry services in Ireland and Austria. Moreover, in Austria, the designated provider is relieved of the obligation to transfer certain freephone number calls from public payphones. The Commission services are examining the matter.

One of the critical conditions of the designation mechanism under the EU regulatory framework is to ensure that no undertaking is excluded a priori from the possibility of being designated to provide at least a part of the universal service. For non-compliance with this

requirement France was referred by the Commission to the European Court of Justice (ECJ) in December 2006. Another infringement proceeding in this regard is open with Portugal. An infringement proceeding with Hungary was closed after assurances from the authorities that individual elements of the universal service could be provided by different operators. However, the Commission will continue to monitor implementation of this interpretation very closely.

## **Financing**

The financing mechanism for the universal service set out in the Directive reflects the need for compensation for the costs incurred by the designated undertakings in instances where the provision of the service to end-users departs from normal market conditions. However, any compensation must involve only related specific net cost and be recovered in a competition-neutral way.

Where the NRA considers that the provision of the universal service represents an unfair burden for the designated undertaking, the net cost must be calculated. The costs and revenues from provision of all universal service elements of one undertaking, including all intangible benefits, must be taken into consideration when determining the net cost for that particular designated provider. The net cost is then set as the difference between provision of the service under the universal service obligation and market conditions. The NRA verifies the accounts submitted by the universal service provider.

On the basis of net cost calculations, the NRA may find that the universal service provider is subject to an unfair burden. Thereafter, and only at the request of the designated provider, compensation can be provided via public or sector-specific funds. The sector-specific fund created from contributions from other market players should only be used for compensation of obligations deriving from the Directive.

Most of the Member States provide for the financing mechanism in their legislation, but its use is rather limited as, in many of them, the provision of universal service is not deemed to be an unfair burden. In certain countries where the unfair burden has been established, for example in the Czech Republic and Italy, transfer of compensation is delayed because of pending disputes or administrative delays. France is currently the only country, as far as the Commission is aware, where the designated undertaking receives compensation. Since the compensation is paid from sector-specific funds, there is a de facto transfer of funds from new entrants to the incumbent taking place.

Belgium's legislation fails to include a mechanism to determine whether providing a universal service is an unfair burden. Likewise, there is no condition that the universal service provider must apply for financing. Additionally, the automatic inclusion of all operators in the provision of the special tariff element is addressed. The Commission is addressing the financing mechanism in Belgium via infringement proceedings.

## **DIRECTORY SERVICES AND DIRECTORY ENQUIRY SERVICES**

The EU framework, within its universal service obligations, includes a requirement for the Member States to ensure that there is at least one comprehensive directory and directory

enquiry service available to end-users. This requirement means that not only fixed, but also mobile subscribers need to be given the opportunity to opt-in to a directory so that their contact information is available if they so wish. The Commission has opened an infringement proceeding regarding the implementation of this requirement in the United Kingdom.

Following the infringement proceedings launched in 2005, comprehensive directories and directory enquiry services are now available to customers in the Czech Republic, Greece, France, Cyprus, Malta, and Slovakia. This positive development now leaves only three countries where these are not available: Portugal and the United Kingdom, where the non-availability of a comprehensive directory is addressed by infringement proceedings, and Poland, which has been referred to the ECJ for the non-availability of either a comprehensive directory or a directory enquiry service.

## **DISABILITY AND SOCIAL NEEDS**

Promotion of an inclusive society is one of the cornerstones of the Commission's policies built into the i2010 initiative. The existence of barriers to achieving eAccessibility encompassing all citizens, including those with disabilities and special social needs, was highlighted in a Communication on this issue in 2005.<sup>30</sup> Additionally, this matter has been examined in detail in the INCOM (Inclusive Communications) sub-group of the Communications Committee.<sup>31</sup> The Commission is assessing the changes to be proposed in relation to facilitating use of and access to electronic communications networks in the light of the current review of the electronic communications framework.

The current framework leaves wide discretion to Member States to adopt special measures tailored to meet the needs of users with disabilities and special social needs. Member States may also choose to take steps on the basis of their national conditions to ensure that people with disabilities and those on low incomes or with special social needs are able to enjoy the choice of services and operators that is available to the majority of consumers.

Many Member States include special tariff schemes for low-income and disabled users as part of the universal service that the designated provider is obliged to offer.

The Irish regulator has taken action to accommodate the needs of users with disabilities by establishing a Forum to promote greater attention to their needs by electronic communications service providers. The United Kingdom sets another example of a tailored approach. The NRA is taking measures to establish a stakeholder advisory panel for the text relay service for deaf, hearing impaired and speech impaired customers. It also proposes to make changes to extend the range of disabled users who can receive their bills and contracts in special formats.

In Sweden, the NRA's strategy for services to people with disabilities involves consultations with market players on the possibilities for offering tailored services to people with special needs. The NRA, at the same time, goes a step further and actually procures eight services to disabled consumers, while running trials of several more. A sign language translation service based on 3G video calls (where an interpretation centre translates bi-directionally between the

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<sup>30</sup> COM(2005) 425

<sup>31</sup> INCOM report (COCOM06-16 Final) published on 12 September 2006.

sign language and voice communication), as well as distribution of digital voice books from an electronic archive accessible by nearly all public libraries, are thus examples of regularly procured services in Sweden.

As illustrated by the best practice examples above, there are various approaches in the Member States to meet the needs of people with special needs. However, there are still many other possible ways, as yet unexplored, in which both the regulatory authorities and market players can make the information society more inclusive for all citizens.

## **NUMBER PORTABILITY**

Number portability is an important tool of customer choice whereby subscribers are given the possibility to keep their existing phone numbers when changing operator.

As number portability has become available in the vast majority of the Member States, the Commission notes the positive impact this facility has created by exerting competitive pressures on both mobile and fixed markets.

Now that mobile number portability has become available in the Czech Republic and Malta (where the arrangements have been put in place also for fixed number portability), Slovakia remains the only EU country where number portability is not fully applicable. The Commission is therefore addressing the non-availability of fixed number portability in Slovakia via an infringement proceeding.

Of all the Member States, Spain has the highest number of mobile telephone numbers v (9.21 million) and the second highest number of fixed ported numbers (2.24 million). In Spain this facility has been extensively used as a competition tool to attract customers. With such levels of uptake, the Spanish regulator has recently launched a public consultation to streamline and centralise the procedure for mobile number porting.

Many other Member States report increasing use of the facility by subscribers. Greece, Germany, Ireland, Italy, Lithuania, Luxembourg, Finland and Sweden are all reporting an increase in ported numbers, especially with regard to mobile services. Fixed number portability has been popular particularly in France, Italy and the Netherlands.

A few countries have included VoIP in their porting system. In Sweden it is possible to port fixed numbers into VoIP services. The Belgian authorities are currently preparing legislation extending the scope of number portability rights and obligations to MVNOs. Belgium, however, reports problems concerning the porting of VoIP numbers due to a legal distinction between publicly available telephone services and electronic communications services.

A number of countries are experiencing difficulties in the practical application. Estonia is facing long delays due to an outstanding dispute over the database. Delays have also been reported in Italy and in France, where a new technical system is being put in place. In Ireland the current mobile porting procedure appears to entail disadvantages for the new entrants. In the United Kingdom, the NRA has proposed changes to the technical arrangements for number portability to simplify the process and reduce the costs involved. The Commission



will continue monitoring the situation in countries where number portability remains relatively low in order to observe cases where porting prices could act as a disincentive.

## **OUT-OF-COURT DISPUTE RESOLUTION**

An increasing need for consumer protection goes hand in hand with the growth and diversification of electronic communication services and a growing number of service providers. A mechanism to settle disputes between consumers and service providers that offers a more flexible, cheaper and less formal alternative to court proceedings is required.

Practical applications of the dispute resolution mechanism, as well as the status of the decisions adopted, vary from one Member State to another. In Belgium, consumer complaints are brought before the Ombudsman, whose rulings are enforceable and extend to internet services. Similarly, the Czech NRA is empowered to issue binding decisions on consumer complaints.

In Spain, the Ministry is responsible for resolving disputes out of court. To increase consumer protection, Spain has adopted legislation extending the right to automatic compensation for service interruption to internet subscribers. The Latvian and United Kingdom NRAs offer the possibility of submitting complaints online. In Sweden, the Consumer Agency includes the office of the Consumer Ombudsman, who can lodge cases with the Market Court. Potentially, the new Consumer Bureau established to provide information and advice to customers could also play a role in settling disputes.

There are several bodies responsible for consumer protection and dispute resolution in France. The French consumer associations are calling for a more streamlined approach and an increased role for the NRA in the process. Similarly, in Hungary, several bodies are responsible for consumer protection. For the sake of transparency, it is important to emphasize the need for cooperation and a clear division of competencies, so as to prevent consumer confusion in cases where more than one institution has the responsibility for consumer disputes.

## **EMERGENCY SERVICES**

In 2006, the single European emergency number 112 was operational in all 25 Member States, and users of both fixed and mobile networks could benefit from this service, wherever they were within the European Union. The Member States increased their efforts to ensure that the standards observed for national emergency numbers are equally met for calls to 112, and in several European countries an average call response time of around 8-10 seconds for calls to 112 is now reported, allowing dispatchers to respond promptly to an emergency.

Sweden, Denmark and the Netherlands have already chosen the single European emergency number 112 as their sole emergency number.

While availability and quality of provision of the basic service now appears to be widely ensured within the Union, implementation of caller location information remains an area where further strengthening of European efforts is required. The caller location information identifies where an emergency call was made from and hence where the person in danger is

physically located. For some Member States, provision of this functionality is still a problem, while other Member States have achieved significant success, benefiting from further advancements in technology and good cooperation between emergency authorities and operators (Czech Republic, Finland).

In 2006, infringement proceedings were opened against 13 Member States and letters were sent expressing the Commission's concerns regarding the provision of caller location information for 112 emergency calls. Following satisfactory responses from Ireland, Cyprus and Luxembourg, the cases against these countries were closed. After scrutiny of the situation in Greece, Portugal, Slovakia, Italy, Lithuania and the Netherlands, the Commission urged those countries to remedy the situation. Further investigations were still pending at the end of the reporting period for the remaining four Member States - Poland, Belgium, Latvia and Hungary.

Caller location for emergency calls made from mobile phones remains the most difficult element to implement, and location accuracy for calls from mobile phones remains low in many Member States. In most cases, emergency authorities only receive information about the "cell" from which the call originated; the possibility of obtaining more detailed information is usually subject to severe technical limitations. In Sweden, for example, the accuracy of caller location is reported to be between 5 metres and 3 kilometres.

Moreover, in most of the Member States location data is provided only at the request of the emergency service (the "pull" method), instead of being automatically forwarded by the network to public safety answering points each time an emergency call is initiated (the "push" method). Even though the latter is more costly, the Commission recommends it<sup>32</sup>, as it saves valuable time and is easier for dispatchers to use. It also facilitates the development of innovative solutions such as the e-Call, a pan-European service of emergency calls from cars using 112.

It must be noted, however, that some Member States have achieved a very high level of efficiency also by use of the "pull" method, with a very good service reliability and an average time of location provision on request of around 6 seconds (Finland). Those Member States argue that the "pull" method is more cost-effective (not all emergency calls require automatic caller location) and easier to implement. However, for a majority of the Member States using the "pull" technique, it is far more cumbersome for emergency services dispatchers, as location in some countries may take as long as 20 minutes.

The use of the 112 number is free all over Europe, and efforts have been made by Member States to make citizens aware of the existence and use of this number. Their efforts range from displaying 112 alongside other emergency numbers in payphones, directories, telephone bills, police notices, newspapers and other media, to organising dedicated campaigns with posters, comic-strips, folders, radio commercials and TV clips. Many 112 campaigns are focused on children and young users. In Sweden, 112 information is provided on the packaging of a popular brand of milk. In Latvia and the Czech Republic, TV programmes bring the daily work of the people behind 112 closer to a wide audience.

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<sup>32</sup> Commission Recommendation on the processing of caller location information in electronic communication networks for the purpose of location-enhanced emergency call services, C(2003)2657, 25 July 2003

A Eurobarometer survey<sup>33</sup> shows improving results as far as knowledge of 112 by European citizens is concerned. 40% of EU citizens at that time identify 112 as the number to call in case of an emergency outside their Member State, whereas only 35% almost one year earlier and only 19% in 2000 were able to do so. The survey reported higher percentages in some Member States (Luxembourg: 79%, Slovakia: 66% and Czech Republic: 63%). Citizens' awareness of 112 as the European single emergency number has increased in 20 out of 27 Member States over the last year.

Some of the Member States have developed dedicated websites explaining how, and under what circumstances, the 112 number should be used. It seems, however, that more needs to be done, as many emergency authorities have expressed concern about the growing number of hoax calls. The percentage of calls from users misusing 112 is as high as 28% in Finland, 50% in Sweden, 60% in Latvia and over 60% in Germany. It would appear that the majority of hoax calls are originated on mobile networks, from end-users using pre-paid cards and SIM-less devices, often just to check if the device is operational. In Sweden and Lithuania, systems have been installed to filter hoax calls, allowing operators to focus on genuine emergency calls.

Bearing in mind the pan-European character of the 112 emergency number, it is critical that satisfactory arrangements in terms of language coverage are put in place (such as in Finland, Greece, Latvia, Luxembourg and the Netherlands). In addition to that, in 2006 some Member States reported that steps are being taken to ensure coverage of languages spoken in neighbouring countries (Czech Republic, Germany, Lithuania).

The Commission recognises and acknowledges that people with disabilities and in particular those who are deaf, hard of hearing or speech-impaired may experience difficulties in trying to contact the emergency services<sup>34</sup>. The issue is addressed in the review of the e-communications regulatory framework, which is currently under way. In addition to proposing amendments to the existing legislation, the Commission will identify the best available techniques for users with disabilities to access emergency services, and seek appropriate standards which could be applied and used in all Member States.

To ensure appropriate implementation and application of 112 provisions, the Commission regularly discusses the issue of emergency telecommunications with the Member States, in particular in the Communications Committee, and in the expert group established to improve dialogue on 112 issues, made up of experts on both telephony and civil protection. A document "Common European Requirements for Access to Emergency Services" is being prepared. It will be a preliminary outline of what functional requirements at European level could look like, as it will bring together and update requirements that are currently spread out over various documents.

## **MUST-CARRY**

According to Article 31 of the Universal Service Directive (USD), Member States may lay down reasonable "must-carry" obligations for the transmission of specified broadcast

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<sup>33</sup> E-Communications Household Survey (March 2007). Special Eurobarometer, European Commission.

<sup>34</sup> INCOM report (COCOM06-16 Final) published on 12 September 2006

channels and services on the network operators under their jurisdiction, for legitimate public policy reasons. This has been the case in many Member States (although not in Cyprus, Latvia, Greece, Luxembourg and the United Kingdom). However, such obligations should only be imposed when a significant number of end-users of such networks use them as their principal means to receive radio and television broadcasts and where they are: (i) strictly necessary to meet clearly defined general interest objectives, (ii) proportionate and transparent, and (iii) subject to periodic review.

In cases where Member States decide to impose must-carry obligations, the general interest objectives pursued have to be clearly defined. In accordance with the requirement of transparency, the general interest objectives pursued should be made known in advance. It appears from the analyses of the respective provisions in the Member States that the public interest objectives invoked tend to be of a general and broad nature, such as freedom of expression and/or information, media pluralism or cultural diversity. In cases where a decision by an administrative body is required in order for a broadcaster (or a broadcast programme) to obtain must-carry status or to impose a must-carry obligation, sufficiently circumscribed criteria should be used in order to avoid arbitrary decision-making.

In addition, in order to make it possible to assess the proportionality of the measure there should be a limit on the number of broadcast channels that can obtain must-carry status.

As a result of a number of complaints and after examination, it was decided to initiate infringement proceedings against Belgium, Finland, the Netherlands and Germany for failing to ensure that their must-carry regimes are in line with the requirements of the Framework. The letters of formal notice were sent during 2006 and the Commission services are now examining the replies of the Member States concerned.

## **E-PRIVACY**

The e-Privacy Directive (2002/58/EC)<sup>35</sup> (the Directive) complements and supplements the general Data Protection Directive (95/46/EC)<sup>36</sup> in the area of electronic communications. It provides for basic obligations to ensure the security and confidentiality of communications over EU electronic communications networks, and gives consumers and citizens a set of tools to protect their privacy and personal data. According to the Directive, the tasks of the Working Party on the Protection of Individuals with regard to the Processing of Personal Data instituted by Article 29 of the Data Protection Directive (the Article 29 Working Party)<sup>37</sup> shall also cover the protection of fundamental rights and freedoms and of legitimate interests in the electronic communications sector.

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<sup>35</sup> 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 (OJ L 201, 31.07.2002, p. 37).

<sup>36</sup> Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (OJ L 281, 23.11.1995, p. 31).

<sup>37</sup> The Working Party on the Protection of Individuals with regard to the Processing of Personal Data is composed of representatives of supervisory authorities, a representative of the authority or authorities established for the Community institutions and bodies, and the Commission. It has advisory status and acts independently.

In July 2006, Greece finally notified transposition measures for the Directive. It was the last Member State to do so. The infringement procedure in this matter has therefore been closed. The two main issues in 2006 in the area of privacy and electronic communications have been unsolicited communications and traffic data retention. The latter is now covered by a specific Directive, adopted in 2006 and discussed further below. Unsolicited communications – mainly relating to “spam” – have been the focus of the Commission’s infringement procedures against Member States in the electronic communications area, which are detailed below. Furthermore, network and information security, including protection against spyware and other malicious software (herein collectively referred to as malware), is gaining in importance for reasons which will be explained in this chapter. The spam issue is becoming intertwined with the fight against different kinds of malware, as spam and malware are increasingly used in combination for criminal profit.

### **Unsolicited communications (‘spam’)**

As a main rule under the Directive, Member States must prohibit the sending of unsolicited commercial communications by fax or e-mail or other electronic messaging systems such as SMS and MMS except where prior consent has been obtained from the subscriber. This is usually referred to as an “opt-in” system. The Directive allows Member States to choose between an opt-in and an opt-out system as regards unsolicited direct marketing by phone marketers (i.e. non-automated). Around half of the Member States have chosen each solution.

Following an infringement procedure opened in 2005, legislation has been amended in the Czech Republic to comply with the opt-out principle concerning direct marketing to own customers, and the procedure was closed in June 2006. An infringement procedure on the same grounds was launched in 2005 against Slovakia. As a consequence, legislation there is now being amended. The Commission no longer has concerns with Latvia’s transposition of the rules on unsolicited communications, and as a result the infringement procedure in question has been closed.

In some Member States, while “national” spam may be under control, spam from abroad – which constitutes by far the biggest portion in any Member State – is harder to tackle. In 2006, the European Network and Information Security Agency (ENISA) conducted a two-part survey on steps taken by the industry to comply with national measures implementing provisions of the regulatory framework for electronic communications relating to the security of services.<sup>38</sup> As the study concludes, various anti-spam laws are in place in the EU, but the challenge is to enforce them in Europe and beyond. Many agencies have undertaken enforcement efforts, but there are significant differences in the number of cases prosecuted. The usefulness of cooperation between public and private stakeholders is clear. However, in some countries there appears to be a lack of public awareness of the possibility of complaining to the competent authorities. In this context, efforts to raise public awareness and – as in some Member States – online complaint mechanisms could be useful.

Although complaints about mobile spam have been received in a few Member States, it is not considered an immediate threat, primarily because of the transmission costs incurred, but also

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<sup>38</sup> [http://www.enisa.eu.int/doc/pdf/deliverables/enisa\\_security\\_spam.pdf](http://www.enisa.eu.int/doc/pdf/deliverables/enisa_security_spam.pdf);  
[http://www.enisa.eu.int/doc/pdf/deliverables/enisa\\_security\\_spam\\_part2.pdf](http://www.enisa.eu.int/doc/pdf/deliverables/enisa_security_spam_part2.pdf)

because, at the moment, mobile networks are relatively closed environments. The technological and commercial developments in this area nevertheless call for vigilance.

In April 2006, the OECD launched an Anti-Spam Toolkit of Recommended Policies and Measures, with the active support of the Commission and several Member States<sup>39</sup>. In December 2006, the informal Contact Network of Spam Authorities (CNSA) set up by the Commission liaised with enforcement agencies grouped in the London Action Plan<sup>40</sup> in order to exchange best practices, facilitate cooperation across borders and to examine strategies to counter the increasing threat of spam as a vehicle for spyware, malware and “phishing”.

### **Network security, spyware and malware**

Recent events in the Member States demonstrate the importance of ensuring the confidentiality of electronic communications and the related traffic data. Under the terms of the Directive, any unauthorised tapping or other kinds of interception or surveillance must be prohibited. Users must also be informed of the purposes of third-party devices installed on their terminal equipment, and have the opportunity to refuse such installation. The transposition issues with Slovakia reported in the 11<sup>th</sup> Report were resolved after new legislation was introduced there in 2006.

Whereas the nature and extent of spam as such is relatively clear and has been the subject of numerous complaints by users as well as some enforcement efforts, less attention has been given to other evolving threats. These include the dissemination of illicit third-party devices, phishing messages and malicious software. Spam can often facilitate such practices by providing a means of distribution. Once infected, computers may turn into parts of a remotely controlled “botnet” used for sending even more spam, orchestrating denial-of-service attacks against servers or other illicit activities. The Commission’s Communication of November 2006 on fighting spam, spyware and malicious software<sup>41</sup> describes the evolving nature of these threats and the work done so far to counter them. It also recommends measures to be taken going forward.

The persistency and evolving nature of the problem calls for greater involvement and prioritisation by Member States. Actions should in particular target ‘professional’ spammers, “phishers” and the spreading of malware. Critical success factors include strongly committed central governments, clear organisational responsibility for enforcement activities and adequate resources. Currently, these factors are not present in all Member States.

In some Member States, action against the installation of illicit third-party devices either is not seen as a priority or has not been given special attention. The explanations for this phenomenon that have been given to the Commission services are as follows: while the use of cookies is not seen as the biggest threat and is relatively easy to monitor, the more serious breaches are designed not to be discovered. As unaware users tend not to complain, enforcement agencies are not receiving the right signals about the nature and extent of the problem. In general, the responsible agencies in Member States report that it is difficult to

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<sup>39</sup> <http://www.oecd-antispam.org/>

<sup>40</sup> The London Action Plan includes enforcement authorities from third countries such as the United States and Japan as well as industry.

<sup>41</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions On Fighting Spam, spyware and malicious software. Brussels, 15.11.2006 COM(2006) 688 final.

estimate the level of compliance. Another disincentive to devoting resources to this area is that serious breaches are often organised from outside the Member State or the EU and by persons who may be difficult to identify. Nevertheless, given the significant social and financial impact of these practices, more efforts need to be made by the competent authorities. Breaches of the Directive's rules on cookies, spyware and other kinds of malware have been investigated in several Member States in 2006, and some Member States' agencies have plans to increase their activities in this area. In the Netherlands, fines for non-compliance can be as high as €450 000, and a special project to combat malware was launched in September 2006. For legal reasons the project is limited to activities in the Netherlands.

In several Member States, user awareness of the rules and the threat involved is considered key to combating illicit third-party devices. In Member States such as Sweden and the United Kingdom the responsible agencies have issued guidance on how to comply with the rules. Good examples of industry self-regulation initiatives include Spain's Confianza Online<sup>42</sup> – an organisation providing a kind of quality seal to its members and a complaint mechanism for users in the area of e-commerce and data protection – and the website AllAboutCookies.org by Interactive Advertising Bureau Europe, aimed at raising awareness among end users, web page owners and advertisers. In a wider perspective of industry activity in this field, ENISA provides some conclusions in its study on the action taken by industry to comply with national measures implementing the provisions of the regulatory framework for electronic communications relating to the security of services<sup>43</sup>. Overall, technical and organisational measures which must be taken by service providers under the regulatory framework for electronic communications in order to safeguard the security of their services are gaining in importance, but they have to be improved.

As described in the 11<sup>th</sup> Report, some of the activities involving malware and breaches of network security also fall under criminal law. The Commission's Communication notes that where this is the case, the responsibilities of different authorities and cooperation procedures need to be clearly spelled out. Close cooperation between enforcement authorities, network operators and ISPs at national level is also needed. Apart from the planned introduction in 2007 of new legislative proposals that aim to strengthen the rules in the area of privacy and security in the communications sector as part of the Framework Review, the Commission is currently working on the further development of a coherent policy on combating cyber crime. This policy will be presented in a Communication that is due to be adopted in early 2007.

### **Data retention for law enforcement purposes**

The e-Privacy Directive limits the processing and storage of traffic data relating to subscribers by public communications networks or publicly available electronic communications services. However, Member States can derogate from the Directive in this regard – subject to certain conditions – by adopting legislative measures extending the limits on traffic data retention in order to safeguard national security, defence, public security and by the prevention, investigation, detection and prosecution of criminal offences or of unauthorised use. The Commission services are currently examining the provisions for data retention in Spain as regards the amount of time during which data can be kept. The time allowed by Member States for data retention for billing purposes varies significantly, but normally corresponds to the period of limitation on claims. Such periods can be at least five years.

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<sup>42</sup> [www.confianzaonline.org](http://www.confianzaonline.org)

<sup>43</sup> See above.

The Data Retention Directive, adopted on 15 March 2006,<sup>44</sup> seeks to harmonise the national data retention measures derogating from the e-Privacy Directive. The new Directive, which must be transposed by 15 September 2007, obliges Member States to ensure retention of data necessary to identify a communication's source, destination, date, time, duration, type, equipment - and, when mobile, location – for a period of between 6 months and 2 years. The types of communication include Internet access, e-mail, Internet telephony and fixed and mobile telephony. Member States have the option of postponing the application of the Data Retention Directive until 2009 as regards Internet access, e-mail and Internet telephony. Sixteen Member States have declared their intention or reserved their right to do so.

The Article 29 Data Protection Working Party has issued an Opinion (3/2006) on the implementation of the Data Retention Directive. Overall, market players are concerned about the expected data retention requirements and in particular the cost involved. As envisaged in that Directive, in order to obtain advice and encourage the sharing of experience of best practice in legitimate requirements of the competent authorities, the Commission intends to establish a group made up of Member States' law enforcement authorities, industry associations, representatives of the European Parliament and data protection authorities.

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<sup>44</sup> Directive 2006/24/EC of the European Parliament and of the Council of 15 March 2006 on the retention of data generated or processed in connection with the provision of publicly available electronic communication services or of public communications networks and amending Directive 2002/58/EC (OJ L 105/54, 13.4.2006, p. 1).



## HORIZONTAL REGULATION

### ADMINISTRATIVE CHARGES

The EU regulatory framework expressly restricts the amount of the administrative charges that may be imposed by national regulatory authorities to the administrative costs resulting from their regulatory work, such as management, control and enforcement of the general authorisation scheme and of rights of use; appropriate adjustments also need to be made in the light of the difference between the total sum of the charges and the administrative costs (Article 12 of the Authorisation Directive). It also explains that systems for administrative charges should not distort competition or create barriers to entry into the market (Recital 31 of the Authorisation Directive).

Problems have been reported firstly as regards the limitations of administrative charges to administrative costs. In particular, the Belgian NRA systematically reports surpluses on its revenue and expenditure account which must be transferred to the State treasury (in 2006 the NRAs of Greece and Spain also reported surpluses). Moreover, some of the expenses included in the Belgian NRA's budget appear to have only a very remote connection to the administrative costs as described by the EU regulatory framework. Spain has put in place legislation providing for transfer of the surplus to the future spectrum regulatory authority instead of continuing to make adjustments to the amounts of the administrative charges. In Malta, market players complain that the calculation of administrative charges on the basis of total gross revenue results in double charging of the revenues related to interconnection (in contrast, Spain has changed its legislation to allow amounts paid to other network operators or service providers to be deducted from gross revenue before administrative charges are calculated). The Commission services are looking into these issues.

In 2006 the Netherlands introduced an interesting system of administrative charges, imposing a fee proportionate to turnover on the largest operators, a flat fee on middle-sized companies, while granting a complete exemption to the smallest operators. A similar graduated approach has also been introduced in France.

On 19 September 2006, the Court of Justice (Grand Chamber) adopted a judgement in the joined cases i-21 Germany GmbH (C-392/04) and Arcor AG & Co. KG (C-422/04) v Bundesrepublik Deutschland concerning, *inter alia*, the interpretation of Article 11(1) of Directive 97/13/EC of the European Parliament and of the Council of 10 April 1997 on a common framework for general authorisations and individual licences in the field of telecommunications services. In particular, the Court reiterated the principle that administrative costs must relate to the types of regulatory work expressly indicated in the Directive and ruled against a possibility of taking into account the regulatory body's administrative costs over an extensive future period (30 years in the joined cases).

### RIGHTS OF WAY

Permits issued to market players granting rights to access public or private property are key facilitators in the development of competition. Granting of rights of way continues to represent a serious obstacle to infrastructure roll-out and hence to growth in a least 10 Member States, even seven years after the liberalisation of the telecommunications market.

As a general rule, a range of different laws and regulations concerning civil works, spatial planning, environment, public health and general administration affect the procedures for granting of rights of way and the roll-out of networks. Complex administrative procedures involve numerous competent authorities depending on whether requests for access rights relate to public or private property, roads, highways, railways or ports. The procedures also depend on the type of infrastructure for which requests have been submitted. Roll-out and maintenance of underground networks seems to be less problematic than the installation and sharing of masts and antennae, to which stricter environmental and public health protection rules are applied. Lastly, procedures also depend on whether requests for permits concern deployment of new networks or whether they merely relate to access to existing networks.

The Commission services are looking into allegations of discrimination in Greece (in spite of recent changes in the legislation, alternative operators are unable to deploy their networks), Malta (the new entrant, without the necessary permit for more than a year, is denied the possibility to offer its services in many areas, whereas the incumbent seems to be moving ahead and is strengthening its market position) and Italy (where several operators are encountering serious difficulties in obtaining permission for access to highways, railways and non-metropolitan roads). Similarly, in Luxembourg some operators say they are unable to obtain permits for access to railways, motorways and in some cases to the land owned by municipalities. Taking into account the difficulties for new entrants to roll out fixed networks, such as the refusal by the relevant authorities to grant rights of way to install facilities on, over or under public property and on roads/highways, the Commission launched an infringement proceeding against Cyprus in July 2006.

The diversity of rules across Member States can have the overall effect of rendering procedures cumbersome and less transparent, causing significant delays in the roll-out of new networks, thereby impeding the development of competition. This remains an issue in Spain, Greece, Italy, Cyprus and Poland. Some Member States have therefore recently stepped up transparency requirements by issuing guidelines and codes and have increased the involvement of the NRAs by attributing more coordination or authorising powers to the market regulators. The measures intended to streamline procedures and set effective deadlines for decisions include recent laws in Greece and Cyprus (the two countries where problems in obtaining rights of way are the most severe) and an advisory service for administrations and a code of good practice in Spain. However the practical effects of these initiatives remain to be seen. The Hungarian NRA is empowered to license all electronic communications structures, but not the masts and antennae, for which it has a strong coordinating role.

Most of the Member States have set instructive deadlines in their legislation to ensure that decisions concerning permits are properly respected. In the event of a failure by the competent authorities to meet the deadlines the administrative law generally provides safeguards whereby lengthy procedures can be challenged through the Courts. However, a few Member States, e.g. Lithuania, Belgium, Greece (only recently), favour quicker procedures under which the non-observance of deadlines to issue permits (including building, planning permits) is considered as an implicit approval. Finally, in the United Kingdom, operators that have prior “code” permission from the NRA simply have to notify the competent authority about their planned roadworks; however, a Bill aimed at reducing traffic congestion may introduce an additional permit procedure for roadworks, which may increase the administrative burden on operators.

With regard to the structural separation between functions relating to granting rights of way and activities associated with ownership of local networks, the risk of conflicts of interest may arise where the local authorities promote the use of their newly built networks and facilities. In Ireland, the incumbent operator was not granted rights of way in one region where the municipality intends to promote the use of local area networks (a project funded partially through Structural funds), while in Luxembourg some operators are reportedly being denied access rights in municipalities which have rolled out their own cable networks. The Commission services are looking into these issues. In the Netherlands, a recent amendment to the law introduces a separation between ownership and decision making competence within municipalities that provide electronic communications networks and prohibits the provision of new electronic communications networks or services by municipalities or their participation in undertakings which provide such networks, unless a specific type of network cannot be put in place without municipal participation.

With regard to facility sharing and collocation, difficulties with gaining access to ducts have been reported in Ireland, Lithuania and Estonia, while in Luxembourg the new mobile operators find that it is no longer possible to share or collocate space on mobile masts and antennae owing to strict security and health rules. In Portugal, implementation of the incumbent operator's reference offer for access to ducts and associated infrastructure, mandated by the regulator in 2004, was delayed mainly due to the incumbent's appeals to the Courts. However, in August 2006 the first requests were submitted to the incumbent and, at the time this report was being drafted, the NRA was confident that the reference offer would become increasingly operational.

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Finally, in Greece and Cyprus there remain a number of mobile masts and antennae that have been erected illegally and, according to the national authorities, will have to be removed.

## **SPECTRUM MANAGEMENT**

The efficient management of spectrum resources across the EU is critical for economic success. The total value of electronic communications services dependent on use of spectrum is estimated to exceed €200 billion, which is equivalent to between 2% and 2.5% of annual European GDP<sup>45</sup>. According to recent research, effective spectrum management across all Member States could generate up to 0.1% of GDP growth, i.e. about €1.5 billion<sup>46</sup>.

### **SPECTRUM LIBERALISATION AND SECONDARY TRADING**

In 2006 a number of steps towards more flexible and liberal management of radio spectrum were taken by Member States. In at least six Member States, liberalisation measures such as technology and service-neutral use of radio frequencies, auctioning of spectrum, shared use of spectrum on the basis of individual rights and use of radio frequencies under the general authorisation regime, were either at the implementation stage (Sweden, United Kingdom) or being considered (Denmark, France, Malta, Poland). In 2006, France introduced secondary spectrum trading, raising to 13 the number of Member States where secondary trading is permitted by law.

At EU level, the November 2005 Opinion on Wireless Access Policy for Electronic Communications Services (WAPECS) produced by the Radio Spectrum Policy Group had called for action across Europe to allow more flexible use of spectrum for mobile, broadcasting, fixed wireless and other electronic communications services. In April 2006 the Communications Committee decided to set up a working group on authorisations and rights of use that would, in the first instance, establish an inventory and examine the authorisation conditions applied by the Member States to the frequency bands envisaged for the implementation of WAPECS. In the context of spectrum liberalisation the working group's aim is to identify possible future common and minimal (i.e. least restrictive) authorisation conditions across relevant frequency bands.

### **IMPLEMENTATION OF SPECTRUM DECISIONS**

By now, the four Commission radio spectrum harmonisation decisions adopted in 2004 and 2005 should now have been implemented. These are Commission Decision 2005/928/EC of 20 December 2005 on the harmonisation of the 169,4-169,8125 MHz frequency band in the Community (frequency band originally designated for the ERMES paging system); Commission Decision 2005/513/EC of 11 July 2005 on the harmonised use of radio spectrum in the 5 GHz frequency band for implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs); Commission Decision 2005/50/EC of 17 January 2005 on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community; and Commission Decision 2004/545/EC of 26 July 2004 on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment in the Community.

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<sup>45</sup> See the study by Analysis et al. 'Conditions and options in introducing secondary trading of radio spectrum in the European Community' (2004), p. 12

<sup>46</sup> Benchmarking Impacts of EU Policy - Options for Economically Efficient Management of Radio Spectrum, Report to the Commission, SCF Associates, December 2006, not yet public.

Implementation of these decisions is patchy. So far the implementation of all four decisions is reported only in 12 Member States (Austria, Cyprus, the Czech Republic, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Slovakia, Slovenia and Sweden). Three Member States were in the process of implementation, while ten Member States reported that three of the four decisions had been implemented.

#### **ASSIGNMENTS OF SPECTRUM**

The EU regulatory framework requires that spectrum assignment procedures conform to the principles of objectivity, transparency, non-discrimination and proportionality (Article 9 of the Framework Directive and Article 5 of the Authorisation Directive).

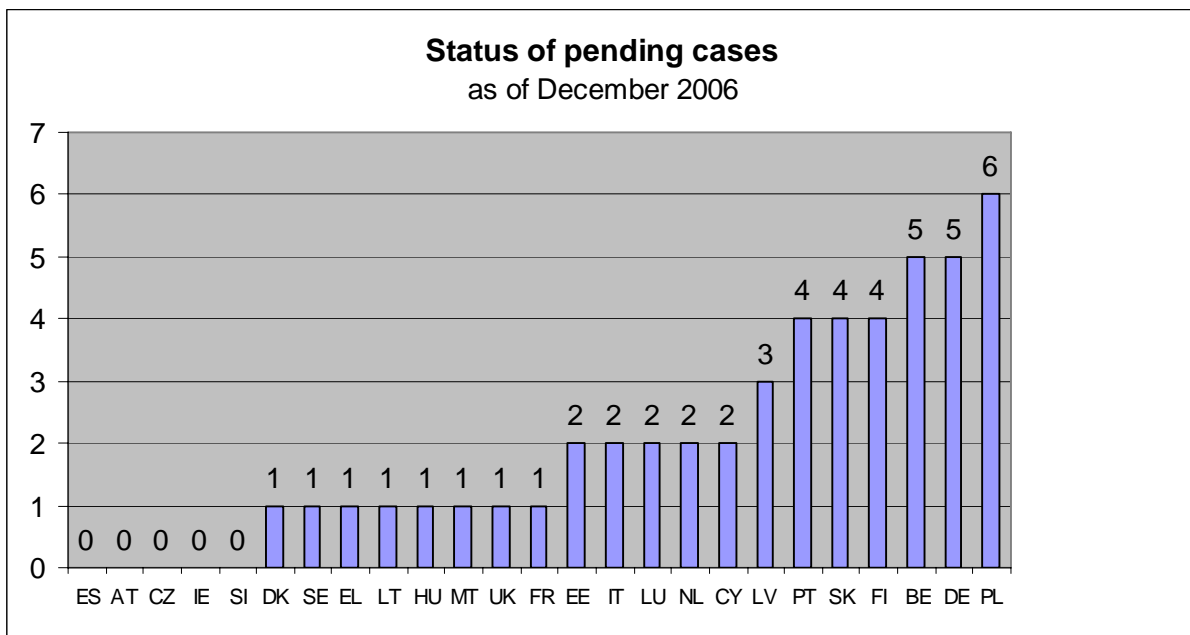
In 2006 four Member States (France, Italy, the Netherlands and Portugal) renewed the GSM authorisations of existing operators or announced plans for their renewal in the immediate future. Notably, the Netherlands has also considered the option of re-auctioning the rights of use for the relevant radio frequencies if potential new entrants were to express an interest in such rights.

As regards major new spectrum assignments in 2006, new 3G rights of use were granted in Estonia and Slovenia. Moreover, the year saw a growing tendency for spectrum assignments to operators providing WiMAX or comparable wireless broadband services. Finally, several Member States (Belgium, Estonia, Finland, France and the Netherlands) announced plans to expand the use of the radio frequency bands originally reserved for GSM technology by allowing in those bands the 3G mobile technologies or even other technologies capable of providing electronic communications services. Finland has already adopted the necessary enabling legislation. The Commission services are working closely with the Member States in the Radio Spectrum Committee to develop a Commission decision that would effectively replace Directive 87/372/EC and achieve a consistent approach across the EU for a more flexible use of the relevant frequency bands.

## MONITORING AND ENFORCEMENT

Enforcing full and effective implementation of the regulatory framework in electronic communications is essential for the sector's contribution to the overall Lisbon goals, and the Commission welcomes the continuing support from the European Parliament for its enforcement role<sup>47</sup>. By the end of the reporting year the Commission had opened more than 140 infringement proceedings under Article 226 of the Treaty since the date of application of the new regulatory framework; in some 90 cases this action is prompted by failure to implement the regulatory framework correctly. These proceedings now concern all EU 25 Member States.

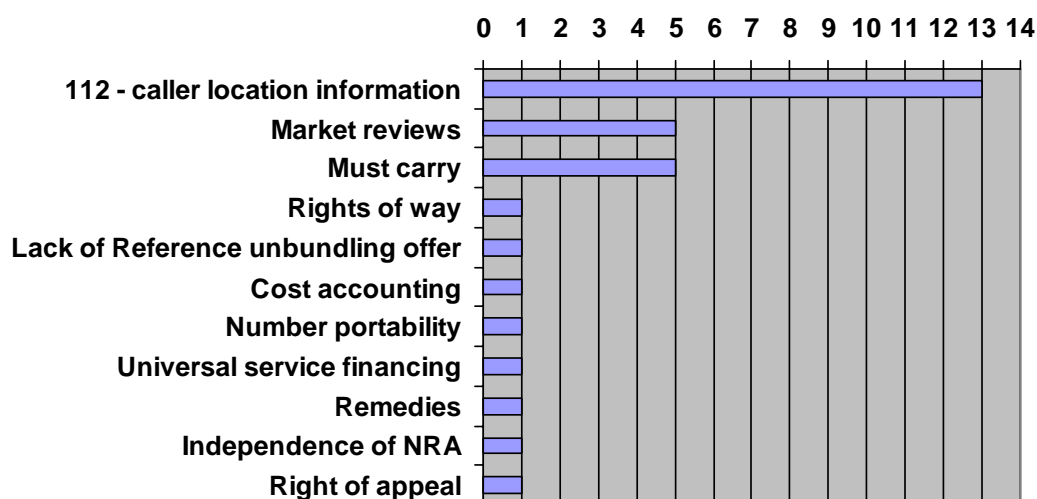
During the reporting year, the Commission opened 31 new proceedings, while 17 pending cases were taken to the second phase with a reasoned opinion being sent to the Member States concerned. The Commission also decided to refer six cases to the Court of Justice in 2006. At the same time, the Commission decided to close 37 proceedings following action by the Member States. Finally, although all 25 Member States, including Greece, had completed formal transposition of the regulatory framework, there were still some 50 proceedings for incorrect implementation pending at the end of 2006.



The focus of enforcement has now shifted from transposition issues to ensuring full compliance and effective application in all 25 Member States. In particular, the Commission services undertook an examination of the major concerns expressed in the annex to the 2005 Report. New proceedings accordingly focused on the non-availability of caller location information to emergency authorities for calls to 112 made from fixed and/or mobile phones, the failure to ensure timely completion of the market reviews and national must-carry provisions. Other issues addressed are referred to in the table below.

<sup>47</sup> See the European Parliament's Resolution on European electronic communications regulation and markets 2004 (2005/2052(INI) of 1 December 2005, based on the Toia Report of 14 October 2005 (A6-0305/2005).

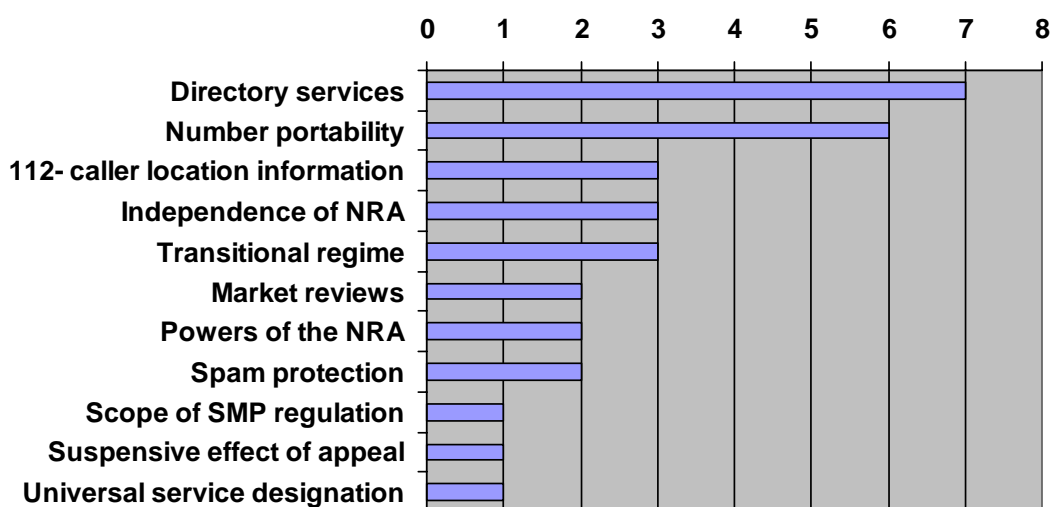
### New infringement proceedings in 2006 by subject



The six cases which the Commission decided to refer to the Court of Justice in 2006 concerned the lack of powers of the NRA (Finland, Poland), the process for designating the universal service provider (France), the lack of comprehensive directories and/or directory inquiry services (Latvia, Poland) and the non-availability of mobile number portability (Malta). In the case of Malta and Latvia the problem was resolved before the application was sent to the Court, and the proceedings were subsequently closed.

Other proceedings that were closed in 2006 concerned the independence and powers of the NRA, the implementation of the market review procedures, the transitional regime, the suspensory effect of appeals against decisions of the NRA, the extension of the scope of SMP obligations to non-SMP operators and the mechanism for designating the universal service provider, and also important consumer issues such as directory services, number portability, caller location information for 112 and protection against spam. The following table gives an overview, by subject, of the number of cases closed due to incorrect implementation.

### Infringement proceedings closed in 2006 by subject



Finally, six proceedings were also closed in 2006 following the communication of relevant transposition measures for the regulatory framework from two Member States (five concerning Greece, and one concerning the United Kingdom with regard to Gibraltar).

The Commission services will now start scrutinising the implementation measures notified to it by Bulgaria and Romania following their accession on 1 January 2007.

To increase transparency for all stakeholders, the Commission has continued to issue press releases at each stage of the proceedings that have been opened. These press releases are available on the implementation and enforcement website of the Directorate-General for Information Society and Media<sup>48</sup> together with overview tables for all cases, which are updated regularly. It is worth noting that this transparency has led to some 40 requests for access to the relevant infringement documents in 2006. It is the Commission's consistent policy not to disclose any documents related to ongoing infringement investigations<sup>49</sup>, but to disclose letters of formal notice and reasoned opinions where a proceeding has been finally closed, unless they contain otherwise sensitive information.

In line with the Commission Communication on better monitoring of the application of Community law<sup>50</sup>, the Commission services have also focused on preventing infringement proceedings by providing general guidance on transposition requirements via the Communications Committee and by making use of intensive bilateral contacts with the relevant national authorities.

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<sup>48</sup> [http://europa.eu.int/information\\_society/policy/ecommm/implementation\\_enforcement/index\\_en.htm](http://europa.eu.int/information_society/policy/ecommm/implementation_enforcement/index_en.htm)

<sup>49</sup> See in particular Article 4(2) of Regulation(EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents, OJ L 145, 31.5.2001, p. 43.

<sup>50</sup> COM(2002) 725, of 11 December 2002.



# **ANNEX 1**

## **IMPLEMENTATION IN THE MEMBER STATES**

# BELGIUM

## INTRODUCTION

Over the last year competition in the mobile sector in Belgium increased, as various virtual network operators entered the mobile market. By contrast, development of broadband access is slowing down.

After transposing the regulatory framework late, in 2006 Belgium carried out a large proportion of the market reviews and started to implement the first remedies. However, the NRA's regulatory efforts have not always appeared very effective and appeals are systematically lodged against them. The cooperation mechanisms agreed between the federal and regional authorities should allow Belgium to send notification of the few remaining markets.

## REGULATORY ENVIRONMENT

### Main regulatory developments

More than one year after the belated transposition of the regulatory framework by the Act of 13 June 2005, the Belgian legal framework for electronic communications is firmly in place. It appears that a large part of the secondary legislation is still based on the previous Telecommunications Act and needs to be updated. Moreover, certain mechanisms are still not in operation, even though they were announced long ago.

The NRA (the Institut belge des services postaux et des télécommunications/Belgisch Instituut voor postdiensten en telecommunicatie (IBPT/BIPT)) has carried out most of the market analyses required and has imposed obligations on the undertakings that have been identified as having significant market power.

Market reviews on unbundled access and broadband have not yet been finalised, however. As the federal state and the language communities are constitutionally required to cooperate on shared competences, the respective government finally settled their dispute in November 2006 by means of a cooperation agreement. Once this has been adopted by their parliaments, the federal and community regulators will start cooperating in the domain of infrastructure common to both telecommunications and broadcasting. Under the cooperation procedure agreed, the relevant draft decisions of the federal and community regulators may have to be submitted to the conference of regulators. In case of disagreement, the decision will be referred to a committee of ministerial representatives in a complex mechanism of substitution for the regulator.

As a result of several appeals to the constitutional court, not only were the federal NRA Act and the Flemish Broadcasting Act challenged but also the Broadcasting Decree of the French community was partly annulled on 8 November 2006. This has delayed the market reviews for broadcasting transmission services, which are allocated exclusively to the community regulators.

The uncertainty about regulation is also reflected in the secondary legislation, where the authorities are hesitant to adopt certain royal decrees (e.g. on spectrum trading, WLL, site-

sharing and 3G services) since these implementing measures might be subject to further annulment proceedings before the administrative court.

Market players add that the legislator and the regulator are often focusing on consumer-related issues to the detriment of promoting competition on the market. Several consumer protection measures are indeed in the pipeline and, allegedly, will impose a heavy burden on all operators, often without any cost-effect assessment.

### **Organisation of the NRA**

The powers of IBPT/BIPT were laid down by the Act of 17 January 2003 regarding the statute of the NRA. Its rules of procedure, covering timing, internal competences, formal requirements, publicity, communication, notification and other organisational aspects, have yet to be adopted by royal decree.

IBPT/BIPT is empowered to impose several types of sanction in case of infringement of the legislation or rules on electronic communications. After serving notice on the addressee to comply with a decision within a set period,<sup>51</sup> IBPT/BIPT may impose a maximum fine of €12.5 million (or 5% of the addressee's last annual turnover), but operators complain that the NRA has imposed hardly any fine since 2003 and is highly reluctant to exercise these powers.

Although IBPT/BIPT is responsible for conciliation in disputes between operators,<sup>52</sup> these seem not to submit their cases to the NRA. The competition authority is legally empowered to settle access and interconnection disputes, but has dealt with very few cases so far. Operators consider that these mechanisms are not effective because the proceedings are uncertain and slow. Furthermore, the competition authority has no explicit penal powers when acting in that capacity. In competition cases it has seemed unable to come up with timely responses.<sup>53</sup> As decisions are not given within a reasonable time-frame and do not meet real market and business needs, operators prefer to bring their disputes before the ordinary courts.

Operators are concerned by the lack of transparency about the NRA's finances. They have questions about the real financial needs of the IBPT/BIPT, whose annual report indicates a surplus of approximately €3 million. This surplus seems to be recurrent and is systematically transferred to the state treasury in accordance with Article 32 of the NRA Statute Act. At the same time the budget provides for a structural reserve and officials of former state tax administrations still appear on the payroll of the Institute.

Since the start of the market reviews in 2006, IBPT/BIPT has been cooperating closely with the Competition Council, which issues an opinion on the draft decisions regarding the relevant markets delimited by the NRA. However, the latter draws a clear distinction between binding and non-binding opinions, considering that the Competition Council's opinions are obligatory only when they deal with price controls and regulatory controls on retail services and that its powers do not go beyond checking conformity with competition law objectives.

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<sup>51</sup> The decision to serve notice appears to be open to appeal. Appeals against fines are always suspensory.

<sup>52</sup> A royal decree has been adopted recently to lay down rules for this procedure.

<sup>53</sup> In the case of retail offers by the incumbent, challenged because of their price squeeze elements, it took two years to reject a claim for provisional measures.

Appeal procedures before the Court of Appeal under the 2003 Act are very lengthy and often used by the incumbent. Not only all the decisions of the NRA with respect to reference offers, but also all new market review decisions are under appeal. The case law has mainly been decided on formal grounds, and has often resulted in decisions imposed on the incumbent being removed.

Possibilities for appealing decisions have been defined by recent case law. Operators may not intervene in any action brought against a reference offer of the incumbent (under the old regulatory framework), as allegedly they are not individually and directly affected by the decision challenged. In the view of the court, a reference offer does not confer subjective rights on operators other than the addressee of the decision, i.e. the incumbent, which is allowed to deviate from the reference offer and to negotiate individual contracts with operators.<sup>54</sup> This minimalist interpretation by the court could lead to a situation in which the incumbent may discriminate between alternative operators and deviate from its reference offer in individual agreements. The Commission is looking into this.

There is growing concern about the impact on future decisions about reference offers. These would no longer need to be submitted for market consultation but would be presented to the NRA with the sole purpose of allowing it to exercise its power of legal control. As there is no longer any annual validity limit, the incumbent would be free to amend its reference offer at any time, while the NRA would impose amendments on its own initiative.

### **Decision-making**

After a belated start, due to the very late transposition of the regulatory framework in Belgian law, the process of market reviews now seems to be on track. IBPT/BIPT carried out most of the market analyses and notified the Commission of the relevant service and product markets. The main concerns regarding the NRA's efficiency relate to the LLU and bitstream markets, where consultations have been held and draft decisions have been published, but, as mentioned earlier, the legal requirement of cooperation with the community NRAs has precluded notification and adoption of the resulting draft measures.

Operators are generally satisfied with the ample consultations launched by the NRA, but often complain that their comments are not taken into account in the final decision. They mention, for example, the price-squeeze test, on which several consultations have been held in recent years, none of which has led to a final decision.

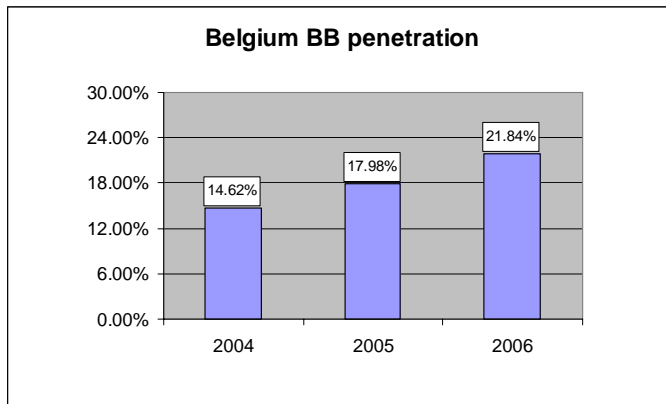
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<sup>54</sup> Judgments of the Court of Appeal of 9 December 2005 and of 16 and 22 June 2006.

## MARKET AND REGULATORY DEVELOPMENTS

### Broadband

#### Market situation

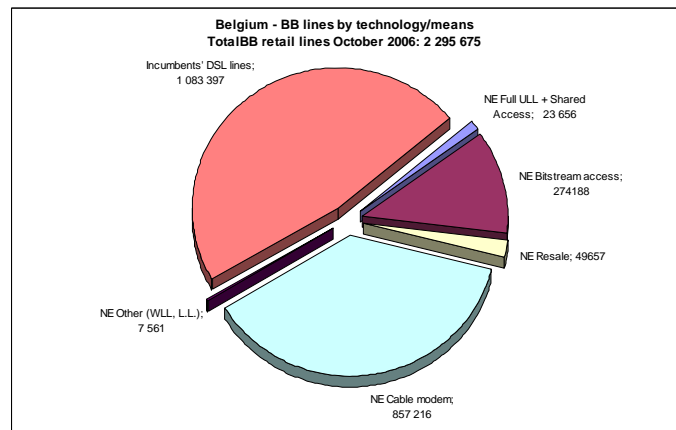


Belgium is not keeping up with the pace of broadband penetration in the leading Member States and has fallen back to fifth place (21.84%).

Nearly half the retail broadband lines are provided by the incumbent. Alternative operators' large market share is mainly due to cable networks (72% of alternative operators' lines).

#### Regulatory issues (including market analyses and remedies)

The incumbent's reference offer for broadband access is still based on the old telecommunications legislation. Most broadband lines of new entrants are still supplied using the bitstream reference offer. Since last year the three main alternative operators have been migrating to unbundling but they complain about anti-competitive conditions, mainly high prices and non-compliance with service level agreements (SLAs).



Wholesale prices for full unbundling remain very high: with the raw copper rental at €11.26 per month, the Belgian fee exceeds the tariffs prevailing in most EU-15 countries. Other costs for co-location and activation/deactivation are also considered excessive. Alternative operators presented a cost model to the NRA in order to establish transparent price models for unbundling, bitstream and co-location. However, the NRA has been developing its own bottom-up model and the incumbent seems reluctant to provide information. Operators complain, furthermore, that the incumbent fails to keep to the times for provisioning and fault repair, and that decisions about SLAs and ISLAs (improved SLAs) are not really enforced by the NRA.

The NRA claims that the trilateral meetings with the incumbent and the main operators are constructive and have led to some operational changes. In the 2007 bitstream reference offer decision of December 2006 (BROBA 2007), digital subscriber line access (DSLAM) tariffs included a large reduction (over 20%) in the rental fee, while the asynchronous transfer mode (ATM) tariffs also decreased (based on a newly developed bottom-up cost model). This would lower the cost per user line by around 20% for mass-market operators and 5% for business operators. BROBA 2007 provides for binding rolling forecasts for installations and

migrations and higher penalties under the installation SLA. As for LLU pricing, a draft decision will be adopted in early 2007. The latest (November 2006) decision on prices for blocks and tie-cables provides for a decrease of around 20% for the most-used types.

In its 2006 BROBA and unbundling reference offer (BRUO) decisions, IBPT/BIPT placed an obligation on the incumbent to include ADSL2+ in its reference offers. Alternative operators are urging the NRA to enforce this decision not only under BRUO but also under BROBA, as they depend heavily on a combination of both. In this case, as with regard to pricing, the lack of effective regulation by the NRA is indicated as the main obstacle to competition. The number of unbundled fixed lines in Belgium remains one of the lowest in Europe.

## **Mobile markets**

### *Market situation*

The penetration rate in Belgium stands at 92%. The market share of the largest mobile operator (now completely owned by the fixed incumbent) is still decreasing (from 47% to 45%), while the second and third operators' market shares are growing (by customer base, to 34% and 21% respectively). Competition is increasing as MVNOs are entering the market, mainly on the network of the third operator.

The operators offer 3G services (with the minimum coverage required by law of 40% or more at the end of 2006) or enhanced 2G services (EDGE).

### *Regulatory issues (including market analyses and remedies)*

Mobile termination rates in Belgium are still amongst the highest in Europe and are characterised by a strong asymmetry (rising from €0.125 for the incumbent to €0.165 for the second operator and €0.202 for the third). After analysis of the relevant market in 2006, IBPT/BIPT identified all three operators as having significant market power and, in particular, imposed a cost-orientation obligation on them, following a three-year glide path (up to the end of 2008). Retail prices are expected to fall as a consequence of this decision, but it is too early to see the impact. IBPT/BIPT has given a commitment to review the current decision in 2007 in order to achieve symmetry between the first and second operators and symmetry or less asymmetry with the third operator. All three operators have appealed against this decision.

## **Fixed**

### *Market situation*

The number of access channels for telephony remains more or less stable, with a strong increase in access via cable networks and a slight decrease via ISDN-2. The number of active CPS lines is steadily declining. The decrease in fixed calls was less sharp in 2005, with several players offering "free-call" packages for off-peak hours.

The market shares of new entrants are still increasing although at a slower pace (from 31.2% to 33.7%). Retail markets remain largely dominated by the incumbent, majority-owned by the Belgian State, still holds large market shares ranging, in value terms, from 67% to 83% on all markets, except the international calls markets for residential customers (45%).

### *Regulatory issues (including market analyses and remedies)*

On 19 June 2006 IBPT/BIPT adopted the first market decisions under the new regulatory framework. On the fixed retail access markets, the incumbent was designated as an undertaking with significant market power. A new remedy imposed is wholesale line rental (WLR), based on a retail-minus cost model, for which the incumbent is obliged to provide a reference offer. After consultation of the market, WLR is expected to be launched in 2007. As regards retail obligations, IBPT/BIPT decided to withdraw the existing general cost-orientation obligation but maintained the obligations of communication and notification of retail tariffs, while imposing cost-accounting and accounting separation as wholesale obligations. In the decision on the market in fixed wholesale call origination (July 2006), the NRA maintained the existing remedies imposed upon the incumbent. For the call termination market, the NRA decided to reduce the termination rates of the two main fixed competitors by applying a glide path and allowed a little asymmetry for the other competitors (incumbent's interconnect rates +15%).

A draft royal decree on accounting separation in the electronic communications sector is currently in preparation. At the same time, IBPT/BIPT is preparing a decision regarding the obligation to set up a cost-accounting system. In its decision on the fixed telephony market IBPT/BIPT announced that it will continue to use a top-down cost methodology for interconnection services, subject, if necessary, to reconciliation with a bottom-up model. Alternative operators insist on use of a BU-LRIC model and propose their own methodology.

On the retail market, problems are often related to price-squeeze issues: alternative operators have challenged certain retail offers by the incumbent but have not achieved any protective measure. In order to control compliance with the incumbent's obligations in general, IBPT/BIPT is developing a price-squeeze test which will be applied in case of suspicion or complaint. Draft guidelines intended to enhance transparency and to contribute to self-regulation have been submitted for consultation.

### **Broadcasting**

#### *Market situation*

Belgium has the highest penetration of cable networks<sup>55</sup> in EU-25 (more than 90% of households). Satellite and terrestrial TV have small market shares of 7.6% and 1.4%.<sup>56</sup>

Since 2005, digital cable platforms have been emerging and are now cooperating on interactive DTV offers. In 2005 the fixed incumbent launched TV over IP, bundling television, voice and broadband. As for DVB-T, since the end of 2006 the public channels can be received free-to-air in most parts of the country.

The Flemish government recently proposed progressive analogue switch-off in 2007-2008.

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<sup>55</sup> Half these companies are in private hands, the other half are semi-public or in public hands (inter-municipal groups). While larger cable companies are already operating in the north, in the south consolidation is under way, in the form of concentration of ten cable companies.

<sup>56</sup> Source: Daxis 2006: "Digital television data; EU market for digital television". (Figures for the third quarter of 2005.)

### *Regulatory issues (including market analyses and remedies)*

In the Belgian federal structure, broadcasting transmission services are under the responsibility of the three language communities. As indicated earlier, the community regulators have not been able to carry out the required market reviews. The French community regulator has started to set up consultation structures and has already notified the first draft decisions. The new Flemish Regulator for the Media started to operate in February 2006 but has not yet carried out any market review.

### **Horizontal regulation**

#### *Spectrum management*

IBPT/BIPT prepared an opinion on a draft royal decree which will possibly review the coverage requirements for UMTS networks. These are to be maintained but additional flexibility is to be offered in that the future coverage obligation can also be met by using the 2G bands. Uncertainty is arising with respect to regulation and enforcement of spectrum obligations, for example allocation of frequencies for mobile TV applications, as a consequence of overlapping powers (see above).

#### *Administrative charges*

Operators complain that they are required to finance nearly all costs (90% of the investment and 100% of the operating costs) associated with operation of the database for social tariffs, provision of which is part of their universal service obligations (see below).

### **THE CONSUMER INTEREST**

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

The Belgian Act provides for a large array of consumer protection measures, such as an obligation for operators to present best tariff schemes, to issue detailed invoices and to publish quality-of-service indicators. While operators question the planned IBPT/BIPT system for monitoring quality indicators, a tariff simulator, allowing customers to make quantitative and qualitative comparisons of tariffs, is expected to be made available on the IBPT/BIPT website in 2007, first for mobile telephony tariffs and later also for broadband and triple play.

#### **Universal service**

The Electronic Communications Act of 2005 introduced a detailed set of rules on provision of the different components of universal service, designation of the providers and the costing and financing mechanisms. Apart from the general system (access at a fixed location, directory enquiry services, directories and public pay telephones), for which the incumbent has been designated as the transitional provider (until the providers are designated under the new mechanism), there are specific rules on provision of special tariff conditions (“social tariffs”) to certain categories of beneficiary.

Several issues with social tariffs have been raised by operators since the scheme was introduced in June 2005. Pursuant to Article 74 of the Telecommunications Act, all public telephony operators, including mobile operators, have been designated to guarantee provision of different categories of tariff discounts. The Act established a specific fund to finance this part of the universal service: operators will either have to contribute to or be compensated



from the fund if the number of tariff discounts granted is lower or higher than the - theoretical - number of social subscriptions they should be granting based on their market share. In May 2006 the database for social customers, set up by the Act to ensure correct allocation to the persons entitled, started to function within the NRA.

Most operators complain that the financing mechanism is based on lost revenue instead of net costs and that no unfair burden has to be established by the NRA. Concerns have also been expressed about the lack of proportionality and the potential effects of market distortion inherent in the system, which is based on the social customers' database working correctly. Operators point to the additional payments demanded of them for the database, while the NRA makes structural surpluses on its budget.

The Commission is looking into these matters in infringement proceedings.

### **Number portability**

A royal decree extending number portability rights and obligations to MVNOs is being prepared.

In a preliminary ruling of 13 July 2006 (case Mobistar, C-438/04), the European Court of Justice gave its interpretation of Article 30(2) of the Universal Service Directive. With respect to the scope of pricing for interconnection related to the provision of number portability, the Court stated that this concept concerns the traffic cost of the numbers ported and the set-up costs incurred to implement requests for number porting. The NRA has furthermore a certain discretion to define the most suitable method to make portability fully effective. It may fix in advance maximum prices on the basis of an abstract model of the costs, provided that these are cost-oriented and fixed in such a way that consumers are not dissuaded from making use of the facility.

### **Must-carry**

The Commission started infringement proceedings against the Belgian authorities with respect to the must-carry rules of the French Community and the Brussels Region. The federal Act on Electronic Communications Networks and Services in Brussels, which includes the amended must-carry obligations for cable networks in this bilingual region, has been adopted by Parliament. The Commission is continuing to monitor these issues.

### **Out-of-court dispute settlement/Activation of non-requested services**

Additional provisions give stronger legal protection to consumers in complaints brought before the ombudsman. In out-of-court disputes, the intervention of the ombudsman suspends the payment obligations of the consumer and may lead to recommendations which are executable by the undertaking concerned. Furthermore, the ombudsman's field of action has been extended to slamming in connection with access to internet services (Article 135 of the Belgian Act).

# CZECH REPUBLIC

## INTRODUCTION

The broadband market in the Czech Republic is characterised by significant platform competition, with the third highest market share for alternative operators in the EU. However, concerning broadband over xDSL technology, which is currently gaining market share at the expense of other platforms, the incumbent has a strong position. High mobile penetration is felt to exert significant competitive pressure on fixed retail prices, and there are signs of fixed-to-mobile substitution. Competition appears to be established on the fixed market, which seems to be undergoing considerable consolidation.

Throughout 2006 regulatory developments in the Czech Republic were dominated by intensive efforts to complete the market analyses and impose remedies based on the results produced by the market review process. Within a relatively tight time-frame, the Czech regulator has made significant progress, completing analyses of all 18 markets defined in the Recommendation. The subsequent choice of remedies reflects an attempt to take a differentiated approach tailored to a particular market situation. Given that to a large extent implementation of the measures adopted started very recently, the impact on the market, in the form of improved conditions for competition and a broader range of services offered to end-users, remains to be seen.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The Ministry of Informatics continued preparing and issuing secondary legislation implementing the Electronic Communications Act of 2005. A new decree on universal service financing was issued to provide details of the financing mechanism for designations made under the Act. The Ministry is currently preparing secondary legislation, some covering further implementation of caller location information for emergency call numbers, numbering, frequency plans and data retention, some amending and replacing previous regulations.

The Czech regulator (ČTÚ) has taken significant steps in the market review process. It has completed the analyses of all 18 markets defined in the Commission Recommendation. To facilitate this process, regulatory teams were activated and mobilised within the NRA.

Certain markets, both at the wholesale and retail level, were found effectively competitive, and existing regulation is being lifted. On retail markets the regulator tends not to impose price regulation, as the high level of mobile penetration and competition in general is considered by the regulator as sufficient to prevent undesirable price increases.

### Organisation of the NRA

ČTÚ appears to meet the criteria of an independent regulatory authority. Its regulatory powers granted by law seem sufficient to enforce data collection and settle disputes between operators, even if these fall outside the scope of significant market power obligations. It has performed satisfactorily in monitoring remedies imposed on particular market players.

The mechanism for appealing against decisions made by ČTÚ is designed to reflect the significance of the decision taken. The actual appeal procedure depends on the source of the original decision. The most important decisions, such as on results of market analyses, remedy measures, price regulation and universal service designation, are made by ČTÚ's Board. These decisions are final within the internal decision-making process and appeals against them can only be lodged before the courts.

Other ČTÚ decisions, i.e. those not adopted by its Board, have the status of first-instance administrative decisions that can be appealed within the administrative procedure. As a rule, with the exception of a few instances, an administrative appeal would appear to result in automatic suspension of the decision's effect. This does not appear to be in line with the EU regulatory framework. Decisions challenged at court level stand unless the court decides otherwise. To date, there has been one court decision to suspend a decision's effect.

Besides the NRA, operators' associations are also active in the out-of-court dispute settlement mechanism in the Czech Republic.

The government has approved a proposal to dissolve the Ministry of Informatics in 2007. The plan is to transfer responsibility for electronic communications to the Ministry of Industry. The proposal will have to be submitted for parliamentary approval first; hence, no final decision has yet been taken.

### **Decision-making**

Out of the total of 18 markets analysed, one retail market (the fixed non-residential international call market) and three wholesale markets (fixed transit services, trunk segments of leased lines and mobile access) were found to be effectively competitive. Eleven of the market analyses were closed without comments from the Commission. To date, ČTÚ has imposed a full set of remedies, including price regulation, on the fixed and mobile termination, fixed origination and local loop unbundling markets only.

On retail markets ČTÚ imposed mainly access, CS/CPS and accounting separation. As regards retail, the regulator appears to impose price control through cost orientation only in response to a particular tariff plan of the incumbent. For wholesale markets, the regulator imposed no price regulation on the broadband access market and broadcasting transmission services. The Commission invited ČTÚ to impose price regulation in these markets.

All the market analyses were finalised and notified to the Commission by August 2006. Apart from exerting extra pressure for input from the market players, this situation appeared to have no negative impact on the regulator's approach to public consultations. On the contrary, ČTÚ added an extra step to the regular consultation process. Workshops were held for market players before the official public consultations on draft market analyses were launched. This approach was well received by the operators, and the regulator found it a valuable means of fine-tuning its regulatory approach. Moreover, since August 2006 ČTÚ has been issuing a monthly monitoring report on developments in electronic communications related closely to the market situation and regulation. Again, it appears a useful public communication tool and, as such, is welcomed by the market players.

## MARKET AND REGULATORY DEVELOPMENTS

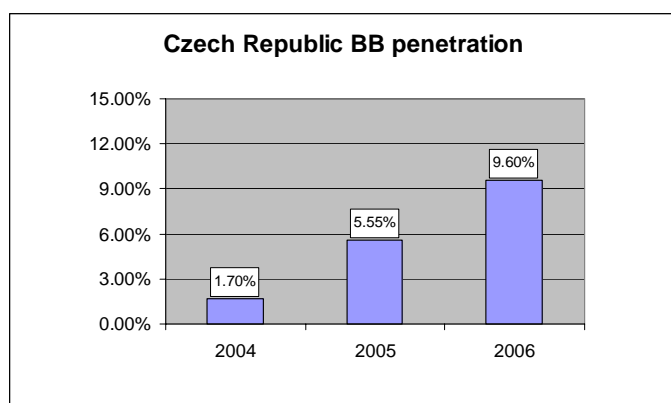
The fixed market is undergoing consolidation in the form of acquisitions of larger alternative operators, which has reduced the total number of effective competitors to close to six. The number of fixed lines continues to decline, but the trend is expected to subside as DSL grows in importance. The fixed incumbent merged its fixed and mobile branches into a single company and started applying a single trademark for both services. The incumbent is following the trend of converging voice, data and video into an integrated service. Besides video-on-demand, it now offers a selection of programmes on an IPTV basis. IPTV is also offered by two alternative providers. Cable operators have started to offer voice-over-cable TV with IP protocol.

DSL services are dominated by the incumbent; nevertheless, its overall broadband market share is less than 40%. In October 2006 the incumbent introduced an integrated broadband service combining its ADSL and CDMA 450 offer. Other main platforms of broadband competition remain WLL and cable. One of the mobile operators has merged the services it provides via UMTS TDD with EDGE and GPRS into an exchangeable service in order to achieve greater coverage. The incumbent offers a 3G broadband service based on HSDPA technology in the two largest cities. The third mobile operator is preparing to start negotiations on cost-sharing for 3G infrastructure with the other market players. All three mobile operators offer GPRS and EDGE services.

A public broadband initiative financed by the Prague municipality and EU funds to provide free internet access via WIFI technology faces strong opposition from commercial market players. Currently, at the first stage of the project, the plan is to operate a wireless network restricted to providing public e-government services. The Commission has emphasised to the Czech authorities the importance of preventing distortion of competition when using state financial resources. The initiative is being further examined by the Commission services.

### Broadband

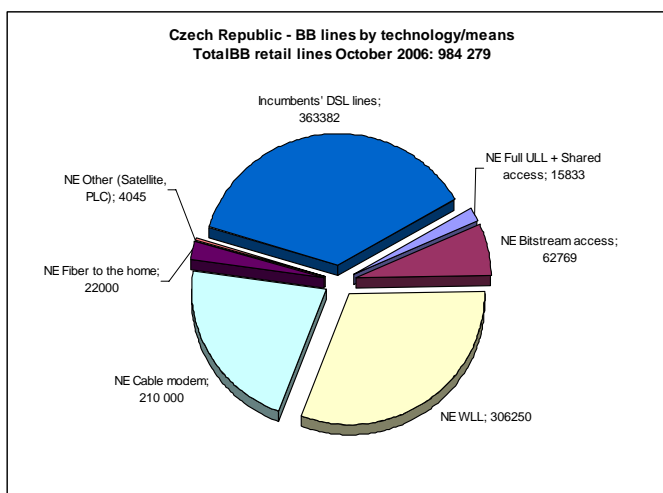
#### *Market situation*



The broadband market in the Czech Republic displays extensive platform competition. More than 60% of all broadband customers rely on infrastructure other than the incumbent-based DSL for their broadband access. WLL (31.1%) and cable modem (21.3%), followed by bitstream access (6.38%), are the main means of providing services employed by alternative operators. The DSL

service (36.9%) is in the hands of the incumbent. WLL, the main platform competing against the incumbent's DSL supply, is not expected to gain further momentum. Instead, DSL is expected to grow after bitstream access was imposed as a remedy at the end of 2006.

Overall, the most rapid increase was in the number of DSL lines, partly due to alternative operators providing access via “managed” wholesale bitstream access offered by the incumbent and under bilateral agreements concluded before ČTÚ’s remedy was imposed. Wholesale DSL provision is bundled with line access provision. Although the number of LLU and shared access lines has been increasing constantly, at 1.52% its real impact on competition appears relatively insignificant. While the number of broadband retail lines has almost doubled since last year, the broadband penetration rate at 9.6% remains below the EU average.



While the number of broadband retail lines has almost doubled since last year, the broadband penetration rate at 9.6% remains below the EU average.

### *Regulatory issues*

ČTÚ has imposed a full range of remedies on the market for full local loop unbundling and shared access. Access, transparency, non-discrimination, accounting-separation and price-regulation obligations were imposed on the incumbent in May 2006. Price regulation is achieved by setting price caps based on the LRAIC model both for LLU and co-location. Price regulation on LLU was imposed in 2005 under the previous regulatory framework. Even though the original prices offered in the RUO dropped significantly after the NRA carried out cost investigations (by more than 50% for connection and 11% for monthly rental in the case of fully unbundled lines and by almost 50% for connection and 41% for monthly rental in the case of shared access), current LLU prices are still above the EU average and take-up is low. ČTÚ expects price regulation for co-location to bring positive results with intensified competition. Co-location price regulation is designed as a price cap for each set type of co-location service.

The wholesale broadband access regulation imposed in December 2006 does not include price regulation, since it is felt by ČTÚ that wholesale prices are falling sufficiently due to the indirect influence of competitive pressures. However, it must be pointed out that even while prices are decreasing, wholesale competition can be negatively affected by margin squeezes. Therefore, more detailed analysis is necessary to establish whether lack of price regulation is not likely to produce margin squeeze margins in the future. The NRA has indicated that it intends to continue monitoring this market and to re-analyse the market within one year.

An obligation to provide wholesale broadband access was set for IP level only. The remedy includes use of BRAS (broadband remote access server) parameters to differentiate the services of alternative operators from the services of the incumbent. Despite the Commission’s comments, access at ATM and DSLAM level was not imposed as ATM is no longer considered relevant to the Czech market and ČTÚ prefers access granted at LLU level to DSLAM level. However, LLU cannot be considered a substitute for DSLAM, especially considering the additional cost involved in the process of unbundling the local loop. Moreover, access at ATM level enables the alternative operators to differentiate their services from the incumbent’s far more deeply than at IP level.

## **Mobile markets**

### *Market situation*

Three mobile network operators, with market shares distributed approximately in the ratio 40/40/20, compete in the mobile markets. The mobile penetration rate is high at 119% and there are signs of fixed-to-mobile substitution. 3G services have been launched by the two big operators. These are planned gradually to cover further cities throughout 2007. The third market player is expected to launch its 3G service in 2008.

### *Regulatory issues*

ČTÚ found no individual or collective dominance of access and call origination on the mobile market. Regulation will therefore not be imposed on this market. There are currently no MVNOs present. However, it remains to be seen whether competitive pressures alone will suffice to secure market entry of an MVNO should demand materialise. Premium-rate services, previously regulated, are now negotiated via commercial contracts. It is therefore important to monitor these developments in relation to customer interest.

The mobile termination markets, on the other hand, were not found competitive and all three operators were designated as having significant market power on their own individual networks. To improve the market situation, ČTÚ imposed a full set of remedies, including access, transparency by means of a reference offer, accounting separation and price regulation. Although cost orientation is not explicitly imposed as such, ČTÚ set price caps for termination rates.

## **Fixed market**

### *Market situation*

The fixed market is undergoing consolidation in the form of acquisitions by larger alternative operators. To date, 20 alternative operators are providing services via CS/CPS. However, the number of effective competitors on the side of new entrants has fallen to close to five. The market share of the alternative operators is 28%. They appear to be most successful in competing with the incumbent for long-distance calls and international calls. No data are available on provision of services via direct access. Cable operators have started offering VoIP services.

Prices for fixed interconnection show no signs of elasticity. They remain well above the EU average (by 46% at local level, 36% at single transit and 21% at double transit level).

The state owns none of the incumbent's shares as these were sold in 2005.

### *Regulatory issues*

Access markets are regulated by CS/CPS, accounting separation and an obligation to allow resale of access services. Cost orientation is applied only with regard to residential customers. Prices for local and national residential fixed calls are not regulated. With retail prices still clearly high compared with the EU average, the Commission notes that active monitoring of these markets is necessary to determine whether the range of remedies imposed is sufficient to address the market failure.

Simple resale of monthly rental fee as part of the wholesale line rental became effective as a remedy on retail access markets in November 2006. The incumbent has produced a relevant offer to alternative operators.

Fixed international calls for business customers were found competitive, and current regulations will therefore be withdrawn. For the same type of calls for residential customers, and also for local and national business calls, ČTÚ proposes accounting separation and withdrawal of current price regulation. These markets are regarded as under sufficient competitive pressure, due to high mobile penetration and pressure from alternative operators. Consequently, the incumbent is not expected to increase prices. The particular remedies were issued in December 2006.

Prices of leased lines remain unregulated and high. However, ČTÚ indicated price regulation at a later stage for wholesale terminating segments and the minimum set of leased lines. The wholesale trunk segment was found effectively competitive and will therefore not be regulated.

The NRA imposed a full set of remedies, including price regulation, on both the call origination and termination markets. In each case price regulation is achieved by setting price caps per minute based on the LRIAC model. Reference offers are therefore required to reflect these rules. However, especially with regard to call origination and dial-up internet services, there is also demand for price regulation of services charged on the basis of the FRIACO model. Settling any price disputes in this context solely via the dispute settlement mechanism could create a degree of uncertainty on the market. The incumbent was found no longer to have significant market power on the fixed transit market; regulation will therefore be withdrawn.

## **Broadcasting**

### *Market situation*

Broadcasting in the Czech Republic is mostly by analogue terrestrial transmission (65%), followed by cable (21%) and satellite transmission (14%).<sup>57</sup> Approximately 880 000 households use cable as their main means of receiving TV broadcasts. Satellite transmission remains the platform used least. There are more than 100 local cable networks. The largest cable operator has announced that it intends to buy its biggest rival, which could potentially give it a cable market share of more than 60%. The NCA cleared the merger in December 2006, subject to a number of commitments. One of the large fixed alternative operators holds 100% of the analogue terrestrial broadcasting market.

One pilot and one regular digital TV broadcast service are still offered in the capital. DVB-T licences were awarded to three companies, one of them being the fixed incumbent and another the analogue broadcasting incumbent. The latter has expanded its coverage to two additional cities. Digital switchover is expected to be launched in 2010-2012.

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<sup>57</sup> Source: Datis: “Digital television data, EU market for digital television”; report prepared for the European Commission, 2006.

## *Regulatory issues*

In the analysis of the broadcasting transmission market, ČTÚ decided to restrict the definition of the market to analogue terrestrial broadcasting transmission only. Concerning other services, the NRA carried out no further evaluation of whether other transmission services are subject to *ex ante* regulation based on the three-criteria test defined in the Recommendation. The Commission invited ČTÚ to analyse the other broadcasting transmission services, in particular digital terrestrial services, which have been already launched in the Czech Republic and are likely to gain significant importance, and to establish whether the markets are susceptible to *ex ante* regulation. The final remedies were imposed in December 2006.

The government approved the digital broadcasting development policy for the Czech Republic in March 2006. ČTÚ is responsible for providing the technical plan for the switchover from analogue to digital terrestrial TV broadcasting. A public consultation on the national digital switchover plan was launched in October 2006.

## **Horizontal regulation**

### *Spectrum management*

The Ministry is responsible for issuing the frequency band allocation plan via secondary legislation. ČTÚ has been entrusted with drafting it, alongside other responsibilities such as management of frequencies, issuing the frequency spectrum utilisation plan and granting general authorisations. Any frequency allocation by tender is administered by ČTÚ. The Czech authorities reported that the radio spectrum harmonisation decisions adopted by the Commission had been fully implemented. Decisions were implemented in the frequency band allocation plan.

### *Rights of way and facility sharing*

The Electronic Communications Act contains provisions on granting rights of way. The law uses the concept of easement for establishing rights of way. Administrative details and disputes are dealt with by the local Construction Office on the basis of the Construction Law. The current Construction Law expired at the end of 2006 when it was replaced by a new one. The Commission services are examining whether the new rules comply with the EU regulatory framework. As the Electronic Communications Act does not appear to specify financial compensation issues in detail, network providers often rely on general civil law to secure their rights of way.

## **THE CONSUMER INTEREST**

### **Universal service**

One major development in the reporting period was designation of the universal service provider. At the end of 2005 and throughout 2006 ČTÚ designated universal service providers for particular parts of the universal service via tendering procedures. The incumbent was designated as single provider for all parts, but special tariffs for disabled users and users with special social needs, for whom the incumbent is to provide this service together with two other mobile operators.



The scope of the universal service is defined in the primary law. However, ČTÚ may limit the scope if the service is provided on the market through competition on a comparable basis. ČTÚ then has the obligation to review the scope of the universal service on a bi-annual basis. Following this line, the regulator excluded access at a fixed location from the scope of current designations. It should, however, be noted that access is crucial for the provision of narrowband internet access. Therefore this point should be closely monitored.

The universal service is financed from the universal service fund to which operators contribute. The only exception is provision of services for disabled users and users with social needs, which is financed by ČTÚ from the state budget. The Ministry issues secondary legislation giving details of the financing mechanism. Major contributors to the fund have appealed before the courts against contributions set for 2001-2003. Based on the decision of the Supreme Administrative Court, ČTÚ is now revisiting the contributions. Due to legal proceedings and the fact that new decisions by ČTÚ are still pending, none of the major contributors has paid its contribution yet. It should be noted that even with provision of partial services, the total net cost of each undertaking is to be calculated taking account of profits from any of the partial services covered by the undertaking.

### **Directory services and directory enquiry services**

After the comprehensive directory and directory enquiry services covering all subscribers, fixed and mobile services became available in February 2006, the Commission closed an infringement proceeding on this subject.

### **Emergency services (112)**

The single European emergency number, 112, is accessible from both fixed and mobile phones. Caller location information for all calls made to 112 is provided automatically for emergency services (push method). Moreover, 112 emergency call handling procedures have been set up to respond efficiently to callers' various language needs. A pilot project on the e-call initiative was tendered out to the incumbent provider.

### **Number portability**

Fixed number portability has been available since 2003. Use of this customer tool on the fixed market is constantly growing. Mobile number portability was introduced in January 2006. The Commission therefore closed its infringement proceeding on this subject. Mobile porting is accessible for both post- and pre-paid customers. The number of mobile ported numbers is increasing with more than 95 000 numbers ported in 2006. A dispute is pending with the NRA regarding the financing mechanism for the mobile porting system. In line with the decision by the Supreme Administrative Court, in the case of fixed-term contracts, however, only customers eligible to terminate their contract are allowed to use the number portability service.

### **Must-carry**

The Radio and Television Broadcasting Act is the principal law covering the must-carry provisions in the Universal Service Directive. The amendment adopted in 2006 affected the must-carry provisions, amongst others. All public channels have to be included in the lowest retransmission offer, while the Radio and Television Broadcasting Council takes the decision on inclusion of commercial channels. However, transitional arrangements expiring in 2011 currently apply. The Commission services are examining whether the provisions laid down in the Act are in line with the Directive.

### **Out-of-court dispute resolution**

ČTÚ is responsible for providing an out-of-court mechanism for settling disputes regarding financial obligations and customer complaints. By far the majority of the disputes revolve around billing issues raised by service providers and their customers. Decisions on disputes are binding.

### **Data protection**

The Data Retention Office is the primary administrative body responsible for supervising data protection. Following an infringement proceeding launched in 2005, the legislation was amended to allow an exception from the opt-in principle for electronic advertising.

# DENMARK

## INTRODUCTION

2006 was a year of strong price competition for mobile and ADSL services, for the benefit of consumers. Denmark is second in the EU in broadband penetration, building on extensive broadband infrastructure and widespread use of broadband connections. The expansion of broadband infrastructure has continued, including types of broadband access other than ADSL. The incumbent has improved its position on the fixed market.

On the regulatory side, the NRA has maintained a very active role in both regulation and preparing new legislation. While three markets have yet to be notified, specific remedies have been revoked as a consequence of market developments. There are concerns about possible amendments to Danish legislation and about a recent decision by the Telecommunications Appeal Board.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Since its adoption, the Danish Act on Competitive Conditions and Consumer Interests in the Telecommunications Markets has been successful in fostering competition on the national market. It has been in force for three years, but a number of amendments have created a feeling of regulatory uncertainty on the part of market players.

### Organisation of the NRA

The Danish national regulatory authority IT-og Telestyrelsen (National IT and Telecom Agency - NITA) is part of the Danish Ministry for Science, Technology and Innovation. As such, it plays an active role in implementation of the government's policies and initiatives. It assists the Minister on matters and legislation concerned with information and communication technology. It drafts policy proposals, bills and executive orders. NITA participates in Council working meetings. Specific regulatory decisions are taken by NITA as an independent body in accordance with the Act on Competitive Conditions and Consumer Interests in the Telecommunications Markets.

The Danish NRA has around 300 employees. The Director, appointed in 1991, nominates the two Deputy Directors. Following a major administrative reorganisation in May 2006, the number of government staff in the Ministry was reduced to two advisers to the Minister on matters regarding the electronic communications sector, while the remaining 33 government officials were absorbed by NITA.

In addition to its overall objectives, the Danish regulatory authority has set three key challenges for the year ahead: enhancing competition in local loop unbundling, clarifying the situation with internal cabling<sup>58</sup>, and focusing on building up the NGN.

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<sup>58</sup> This relates to the situation where two alternative operators seek to run a cable between two racks co-located in the incumbent's facilities

In general, NITA is perceived as a powerful, knowledgeable agency, with close relations with the Ministry.

All operators stressed the need for a stable regulatory framework and for timely and firm decisions. They described the Act on Competitive Conditions and Consumer Interests in the Telecommunications Markets as a “patchwork of amendments” since it was being amended at least once a year.

Concerning the appeal mechanism, the Danish authorities have resolved the issue identified in last year’s implementation report by bringing the Danish legislation into line with Article 4(1) of the Framework Directive. As a result, appeals against decisions by the NRA no longer automatically suspend their immediate enforceability.

### **Decision-making**

NITA had failed to notify three relevant markets by July 2006. For this reason, the Commission opened infringement proceedings in October 2006. Regulatory developments with regard to roaming, deliberations on a possible definition of a transnational market for wholesale broadcasting and the adoption of a draft national law on internal cabling seem to be delaying analysis of the remaining markets. The Danish authorities stated that notification of the three remaining relevant markets would be given in early 2007.

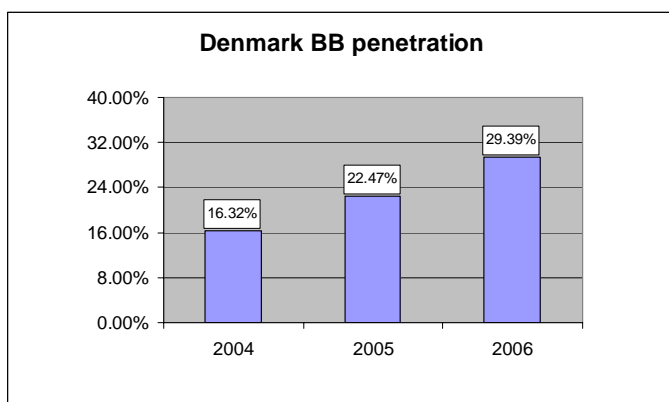
At the time of writing, NITA had taken final measures for 15 of the notified markets and confirmed that all remedies imposed for those markets were in force. NITA imposed the full set of obligations on wholesale markets and on the retail market of minimum set of leased lines, but no remedies were imposed on the fixed retail access and fixed retail calls markets (markets 1-6). Furthermore, NITA lifted regulation of wholesale access and call origination on the mobile market.

Generally, NITA is considered efficient at conducting market analyses and taking final regulatory measures. Yet all market players and NITA perceive the market analysis process as time-consuming, partly due to legal challenges. Concerns were raised by the incumbent on the wholesale broadband access market (market 12) that its analysis resulted in very detailed regulation, and by the incumbent on the mobile call termination market (market 16) which complained of asymmetry in the termination rates. Concerns by the alternative fixed operators focused on a ruling by the Appeal Board on the market analysis and obligations imposed under the current regulatory framework in relation to obligations imposed under the pre-2003 framework: if an obligation in a specific market was not imposed on the incumbent under the old framework, the NRA could not impose it under the current framework. Alternative operators feared that this decision could restrict the NITA’s regulatory powers. Legislation to resolve this matter was passed in December 2006. The Commission services are looking into this matter.

## MARKET AND REGULATORY DEVELOPMENTS

### Broadband

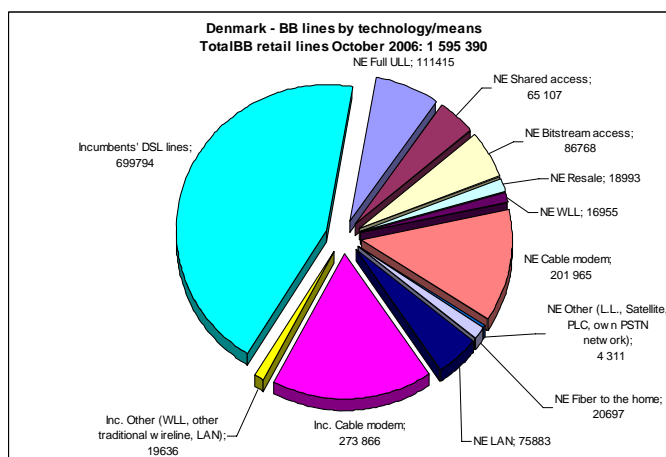
#### Market situation



Denmark has very extensive broadband infrastructure and makes widespread use of broadband connections. It is second in the world in terms of broadband penetration rate with 29.39% in October 2006 (the EU-25 average was 15.69%). This success can be attributed to the increasing competition on the broadband market, due partly to new providers' access to the incumbent's fixed network and partly to emerging new technologies

based on alternative broadband infrastructure, creating intensive infrastructure-driven competition. Broadband connections are primarily in the form of ADSL, cable modems and LANs used by building associations. Other types of broadband connections, such as hotspots based on WLAN technology and 3G mobile data services, also gained ground in 2006. A number of energy companies continued to invest heavily in the roll-out of fibre-based infrastructure.

The number of broadband lines increased by 57.12% to 1 595 390. The incumbent's market share of retail broadband connections remained unchanged since 2005 at 60%. Its DSL lines increased from 556 694 in October 2005 to 699 794 in October 2006.



The number of wholesale LLU lines has continued to increase by 23%, mostly in the form of fully unbundled lines or shared access lines. The number of fully unbundled lines almost doubled in 2006 to 111 415.

The wholesale connection price and the monthly rental price for fully unbundled local loops are among the lowest in the EU. As regards shared access, the connection price continues to be among the lowest in the EU while the monthly rental price is around the EU average.

Data on the use of alternative technology platforms suggest that broadband lines based on cable, provided by the incumbent or by new entrants have experienced a significant increase. The incumbent's cable lines increased by 62% to 273 866 in 2006, while the new entrants' increased by 18 468 to 201 965 cable lines by October 2006.

Similarly, the incumbent's broadband lines based on wireless local loop rose to 10 954 in October 2006 (an increase of 290%), while new entrants' cable lines increased from 4 392 a year before to 16 955 in 2006. Operators have started using Wi-Fi hotspots to deliver broadband services. The incumbent had 740 hotspots (4.5% of the total broadband lines) and new entrants 208 (1.2% of the total broadband lines).

### *Regulatory issues*

The problem identified in last year's implementation report regarding internal cabling<sup>59</sup> still persists in competition on the Danish fixed network. Alternative fixed operators called for clear legislation on the matter as the key to developing their infrastructure. The incumbent felt that co-location between alternative operators should take place outside its local exchange cabinets. All operators considered the underlying national legislation weak. The Danish Telecommunications Complaint Board ruled against both NITA's decisions that alternative operators have the right of direct interconnection on the incumbent's co-location premises. NITA seeks to clarify this issue during 2007.

Market players have expressed different opinions regarding the pricing of the incumbent's access lines to the home (both PSTN and ADSL). The situation arose after the analysis of the wholesale broadband access market (market 12) when NITA imposed an obligation on the incumbent to give access to ADSL lines to its competitors without simultaneous delivery of telephony to end-users ("naked DSL"). NITA's decision entered into force when the Complaint Board gave its final decision in July 2006.

With effect from October 2006, the incumbent introduced a new retail price system where PSTN prices are higher if there is no ADSL service on the same line. The new retail price system entails a discount on the PSTN price if ADSL is on the same subscriber line. The incumbent introduced the discount after pressure from NITA to solve a problem related to otherwise excessive recovery of costs by the incumbent. Alternative fixed operators fear that the incumbent would have a competitive advantage since this will give end-users an incentive to have both PSTN and ADSL lines from the incumbent. The discount is also given to WLR.

Another considerable concern among alternative fixed operators has been the incumbent's network roll-out strategy, which aims at meeting its end-users' demand for high bandwidth. Alternative operators are worried about whether they would be allowed access to the street cabinets closer to end users, and on what conditions. They consider their investments in the central local exchanges seriously at risk as they feel they will no longer be able to compete on either speed or quality against the incumbent's retail products. The roll-out raises problems with quality and stability on the incumbent's network. On the other hand, the incumbent felt that the legislation in place was one-sided aiming at ensuring access to its broadband network but not supporting the regulatory goal of "many pipes to the home". NITA fears that this restructuring of the network could force competitors to use bitstream products instead of promoting investment in the operators' own network.

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<sup>59</sup> The situation where two alternative operators seek to run a cable between two racks co-located in the incumbent's facilities.

## **Mobile markets**

### *Market situation*

The mobile telephony market in Denmark continues to record high penetration levels with 5.5 million mobile subscriptions by September 2006. The penetration rate rose to 104% from 101% a year earlier.

At the end of September 2006 there were four mobile network operators and one MVNO operator on the Danish market. The leading mobile operator had a 31.57% market share in terms of number of subscribers. Its market share remained stable compared with last's year figure. Its main competitor had 19.63% of the market while the third competitor had 19%. The other competitors had a combined market share of 23.12%.

After the first half of 2006 nine operators provided 97.1% of all mobile services in Denmark.

Three operators currently offer 3G mobile services. Two of these are required to cover 80% of the population by the end of 2008, while one is required to cover 80% of the population by February 2013. One of the 3G operators has already met this coverage requirement. Another operator has a 3G licence but is not yet in commercial operation.

### *Regulatory issues*

The analysis of the mobile access market (market 15) suggested that there was effective competition on this market. The relevant sector-specific regulation was therefore revoked. MVNO access is no longer subject to regulation.

NITA's analysis of the mobile call termination market (market 16) found that all five operators had SMP on their particular market and that the termination prices were high. NITA therefore imposed a number of obligations on all operators, while the three main operators have also been subject to a price control remedy. A two-year glide path has been applied to bring prices down to cost orientation by 1 May 2008. For 2006-2008 prices will be based on a best practice benchmark. An LRAIC model is under development.

## **Fixed**

### *Market situation*

In September 2006 there were 37 public fixed voice telephone operators, 59 if cable TV operators that provide voice telephony services are included. The national fixed voice calls markets, however, are still deemed to lack effective competition due to the high market share of the incumbent. In fact, the incumbent's share of fixed calls in terms of minutes of traffic increased from 60.9% a year earlier to 64.2% in 2006.

The number of subscribers using an alternative provider other than the incumbent for long-distance and international calls on the fixed voice telephony market decreased to 36% in 2006 from 44% the year before.

Danish prices for fixed-network termination continue to be among the lowest in Europe. The interconnection charges for call termination on the incumbent's fixed network for single transit decreased further in 2006 from €0.72 to €0.62. Similarly, for double transit they fell from €0.91 to €0.88.

#### *Regulatory issues*

An amendment to the national law entered into force on 1 January 2006 giving NITA powers to set terms and conditions for access and interconnection agreements, if required by one of the parties or on NITA's own initiative.

Following introduction of the LRAIC model in January 2003 for calculation of interconnection prices, in 2005 NITA decided that some changes to the existing LRAIC model were necessary. The corresponding decisions concerning the LRAIC maximum prices for 2006 were taken in December 2005.

### **Broadcasting**

#### *Market situation*

At the end of the third quarter of 2005 some 25.8% of all households in Denmark (2.5 million households) had analogue TV as the main means of reception of TV content, while 21% had satellite. 53.2% of households had cable TV.<sup>60</sup>

Analogue terrestrial switch-off is scheduled in Denmark at the end of October 2009. The roll-out of digital terrestrial TV was initiated in April 2006 offering nationwide coverage. Three public-service TV channels started broadcasting on the first nationwide digital terrestrial transmission network.

NITA took steps in 2006 to collect suggestions on use of the frequencies from the transition to digital TV (digital dividend) and the roll-out of mobile TV.

#### *Regulatory issues*

The analysis of the broadcasting transmission services market (market 18) in Denmark has not yet been finalised.

### **Horizontal regulation**

#### *Spectrum management*

The introduction of new regulatory methods which would allow liberalisation of use of frequency bands is currently being discussed in Denmark. In autumn 2005 NITA launched a strategic review of the current licence regulation. This is focusing on establishing a fast track to allocate frequencies, in particular in case of scarcity, on technology- and service-neutral licensing of frequency allocation and on establishing a system to allow further spectrum trading. A public consultation was to be launched in Denmark in summer 2006 on the basis of

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<sup>60</sup> Source: Datis: "Digital television data, EU market for digital television"; report prepared for the European Commission, 2006.



a report commissioned by NITA from a consultancy. The consultation will provide feedback to the NRA to conduct political discussions and draft legislation.

A number of alternative operators considered that the decisions on frequency allocation were not based on market considerations and that allocation of some frequencies was blocking market development. The incumbent complained about delays in awarding spectrum in frequency bands where there was scarcity.

#### *Administrative charges*

While operators consider that administrative charges are generally high, numbering fees at 0.24 Euro per year for an 8-digit number have remained unchanged since 2004.

#### *Network roll-out*

The incumbent owns both types of infrastructure network (broadband and cable TV). It has announced plans to invest in its network roll-out with the aim of meeting its end-users' demand for high bandwidth on the broadband market. Cable TV networks, community antenna systems and fibre-based LANs, widely used in urban areas, are currently being extended or upgraded. At the same time, an increasing number of power companies have continued investing heavily in the roll-out of fibre-based infrastructure in geographically separated areas. Their target is to offer a fibre connection to 500 000 households and enterprises within a couple of years. Fixed wireless broadband access networks and 3G mobile networks are becoming widely available in the country. WiMAX is now being offered in major cities. A considerable number of WLAN hotspots (around 1000) have been established nationwide.

## **THE CONSUMER INTEREST**

### **Universal service**

The Danish incumbent is currently the designated undertaking providing all services that correspond to the universal service obligations included in the Universal Service Directive (Directive 2002/22/EC) nationwide until the end of 2007. In view of the need for a new designation in the near future, the Danish NRA launched a public consultation in October 2006 to gather feedback on whether amendments to the primary legislation were necessary. If so, secondary legislation on the matter will be proposed to the Danish Parliament.

A new regulation which came into force in January 2006 abolished all price regulation of services included in the Universal Service Directive 2002/22/EC nationwide until the end of 2007, including call set-up charges on the fixed call markets.

### **Number portability**

Number portability is available for all types of numbers, fixed or mobile. At the end of 2005 the Danish Parliament adopted a bill which abolished the legal requirement on full number portability, that is the porting of numbers between fixed and mobile phones.

## **Data protection**

Following the government's strategic anti-terrorism plan adopted in November 2005, the data retention obligation, including incoming calls, mobile cell information and incoming e-mails, has been defined. The law includes an extensive retention obligation for user traffic data on the internet. All operators strongly disagreed with the Danish legislation, which they considered went far beyond the EU requirements and was very costly.

# GERMANY

## INTRODUCTION

During 2006 the competitive situation further improved on most of the fixed line markets in Germany. On the mobile market, further significant changes were seen in retail prices, with more new operators providing only basic services entering the market. The broadband retail market became much more competitive, also due to increased resale-based offers. Consumers continued to benefit from further falling prices, in some instances triggered by developments on the markets rather than specific regulatory intervention.

As regards regulation, the German NRA (BNetzA) completed important market analyses, such as those for the mobile call termination and wholesale broadband access markets. However, there were also some delays in completion of significant market analyses.

The issue of how to regulate “new markets” was first discussed and finally addressed in Germany by inserting a new provision in the Telecommunications Act which, in the view of the Commission, would grant a “regulatory holiday” to the incumbent fixed network operator. In addition, this provision would decrease the discretion of the German NRA and would evade the consultation and consolidation mechanism provided for by the regulatory framework. The Commission therefore decided to launch an infringement proceeding.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The main regulatory development in Germany was the addition of the abovementioned new provision to the German Telecommunications Act (TKG) which aims at exempting new markets from regulation. Under this new provision new markets should only be included in the market regulation and the Community consolidation mechanism should apply only if certain requirements are met. There have to be facts justifying the assumption that otherwise development of a market on a basis of sustainable competition in telecommunication services and networks would be hindered on a long-term basis. When examining the need to regulate and when imposing remedies the NRA has to consider the proportionality of its action, taking particular account of the objective of encouraging efficient investment and promoting innovation.

Alternative market players have reacted extremely negatively. In December 2006, the Commission decided to launch an infringement proceeding against Germany upon publication since in its view the approach taken by Germany is in breach of the European regulatory framework.

With regard to the regulatory situation as such, completion of some market analyses is still being delayed. In October 2006 the Commission therefore initiated an infringement proceeding against Germany. Nevertheless, BNetzA has delivered results on certain markets. For example, it imposed access obligations on the incumbent fixed network operator on the wholesale broadband access market for IP-based bitstream. For ATM-based bitstream BNetzA recently also proposed an access obligation. However, the effectiveness of the remedies imposed cannot be assessed sufficiently at this stage, as even on markets on which

remedies have been imposed they are either not yet fully applied, e.g. due to lack of standard offers, or have only recently been applied.

## Organisation of the NRA

The majority of market players, represented by the two major alternative operators' associations, confirmed that in the telecoms section BNetzA has remained fully operative despite the broadening of its responsibilities. Since mid-2005 BNetzA has been responsible for the railway, electricity and gas sectors in addition to telecoms and postal services.

Market players were not yet able to conclude that the removal of one instance in the court hierarchy by the TKG had led to any real acceleration of the appeal mechanism. The NRA, however, reported a shortening of the average duration of court cases.

In the 10th Implementation report concerns were expressed that the members of BNetzA's presidential chamber depend on political appointment. This situation has not changed yet.

## Decision-making

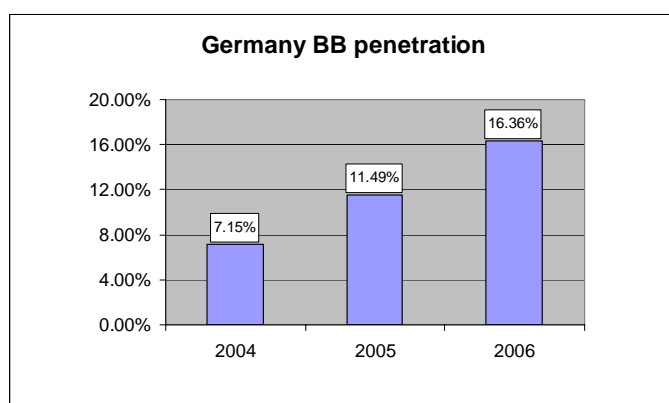
BNetzA made progress during the last year, *inter alia* by giving notification of the analysis of the broadcasting transmission services market and of the draft remedies for the mobile termination market and the fixed wholesale broadband access market.

National consultations are run prior to consultation of the Commission. The fact, however, that there are separate decisions for market definition/analysis and for remedies has prolonged proceedings, including during the reporting period. The previous implementation report addressed this issue in more detail.

## MARKET AND REGULATORY DEVELOPMENTS

### Broadband

#### *Market situation*



The market situation improved compared with the previous year. This was mainly because alternative operators were able to increase their market shares concerning retail access significantly. Moreover, retail prices fell considerably.

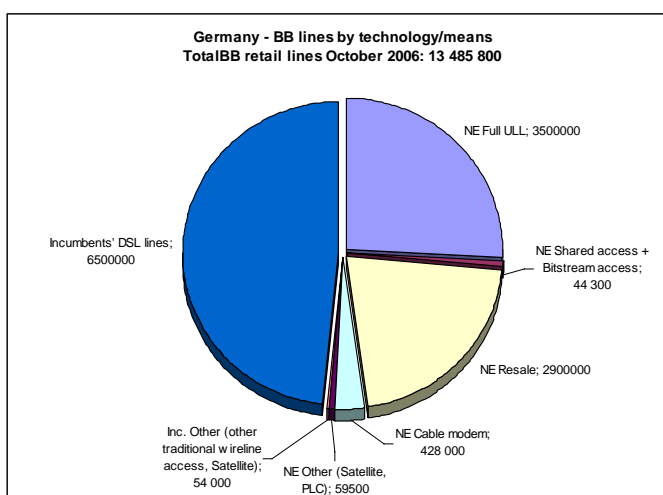
In October 2006 the broadband penetration rate was 16.36% (up from 11%). Cable continues to be used mainly for television, but the cable

network operators have slowly begun to offer broadband internet services and have reached a market share of 3.17%. However, there is a clear trend towards more growth.

The alternative operators' share of the DSL retail lines market has increased significantly, from 33% in October 2005 to 47.24% in July 2006. However, a closer look at these figures demonstrates that this positive development is largely based on resale products from the

incumbent and would obviously not be so good if resale were excluded. If new entrants' DSL resale lines were included in the incumbent's market share, this would still add up to 71% in July 2006.

Alternative operators' market share of broadband in general was 51% in October 2006 and was divided as follows: the majority (25.38%) was based on LLU, 19.83% on resale, 2.86% on cable modem and 0.23% on shared access.



Whereas in the past the incumbent used to offer resellers only relatively small profit margins, it changed its policy in 2006 by offering resellers with a large number of customers high discount rates (the “net rental” offer). When the NRA decided that this differentiation between resellers was discriminatory, the incumbent offered all resellers higher discount prices enabling them to get a better profit margin.

Competition at resale level is constantly growing with retail end-user prices for DSL internet access falling further. Lower retail prices consequently lead to an increase in DSL access in Germany, with penetration rates rising continuously. The impact of this development on investment in infrastructure will need to be verified.

### *Regulatory issues*

Regarding the “ladder of investment” principle, the first and last rungs on the ladder - resale and the unbundled local loop - are in place, but bitstream wholesale access is not yet provided. However, in September 2006 BNetzA notified the Commission of the final remedy imposing an obligation on the incumbent fixed network operator to offer IP-based wholesale bitstream access. In January 2007 the NRA sent notification of a similar obligation concerning ATM-based wholesale bitstream access.

Despite the growing penetration rate, it appears that two conditions could further enhance Germany's broadband performance. First, cable operators need to continue to upgrade their networks for digital transmission in order to become a true alternative infrastructure option for broadband access. Second, the incumbent fixed network operator needs, in principle, to open or further open its network to alternative operators. Amongst other efforts, by challenging Germany's attempt to exempt certain markets *a priori* from regulation the Commission is trying to support the achievement of that second condition.

### **Mobile markets**

#### *Market situation*

Mobile penetration was 101% in October 2006 (up from 92%), and there were 83.1 million subscribers. There were four mobile network operators and eight main mobile service providers on the market. The overall market share of the subsidiary of the incumbent fixed network operator was 36.9% in July 2006 (37.7% the year before). The main competitor held

an almost identical market share with 35.6% (37.2% the year before). The third mobile network operator had 14.7% and the fourth 12.8%.

### *Regulatory issues*

The NRA started its analysis of two mobile markets and finalised the analysis of voice call termination on individual mobile networks by October 2006. BNetzA found that all four network operators have SMP on their networks. First, BNetzA invited the operators to agree to lower mobile termination rates (MTRs) on a voluntary basis. As not all operators could agree, BNetzA imposed a reduction of MTRs on all four operators with the consequence that average MTRs were to go down by 16% as from November 2006 until November 2007. It is worth noting that BNetzA did not refuse to apply *ex ante* wholesale tariff regulation by invoking the controversial provision of Section 30 of the TKG which contains the “double dominance” criterion. By this it would appear BNetzA applied the controversial decision in conformity with Community law and in a forward-looking way.

## **Fixed**

### *Market situation*

A total of 132 operators were actually offering public fixed voice telephony in July 2006, nine of which were major operators.

On the basis of retail revenue and minutes of outgoing communications, the incumbent fixed network operator’s market shares of all types of calls decreased further. On the basis of retail revenue, alternative operators’ market shares increased from 25% to 31% for local phone calls, from 37% to 43% for national phone calls and from 60% to 61% for international calls, while their share of calls to mobile rose from 39% to 43%. Alternative operators’ share of the market for all local calls on the basis of outgoing minutes increased significantly once again, from 34% in 2004 to 60% in 2005.

C(P)S is broadly applied and the fact that the incumbent fixed line operator also collects the charges for call-by-call connections made through its competitors makes it attractive for customers to use carrier selection.

### *Regulatory issues*

The Commission asked BNetzA to revisit its opinion that, apart from the incumbent fixed network operator, no operator had SMP on the fixed wholesale call termination market. Subsequently, BNetzA identified all alternative fixed network operators as having significant market power.

The definition and analysis of the markets for leased lines (markets 7, 13 and 14) were notified in August 2006. BNetzA indicated no remedies at this stage. The Commission made no comments on BNetzA’s findings concerning the retail market but at the end of September 2006 it asked for further investigations of the wholesale markets. In particular, the Commission questioned the segmentation of the wholesale markets by cutting off at 2 Mbit/s and the sufficiency of the data underpinning the market analysis. As in some cases the new data collected by BNetzA from market players deviated from data previously submitted, BNetzA decided to withdraw the notification of the wholesale leased lines markets.

## **Broadcasting**

### *Market situation*

On the German TV and radio market end-users mainly use cable (55% of all connections) or satellite (40% of all connections) to receive the radio and television signal. Analogue terrestrial TV has virtually ceased to exist as an alternative access platform (around 2% and still falling), while digital terrestrial television (DVB-T) has not yet reached critical mass (around 3% of all connections). Both television via ADSL (“IPTV”) and UMTS account for under 1% of all connections and are considered by BNetzA as still nascent alternative platforms for delivery of the television signal.

### *Regulatory issues*

As regards BNetzA’s notification of the broadcasting transmission services market, the Commission did not challenge the NRA’s finding that the three major German cable operators hold significant market power over parts of the cable network, despite the fact that an SMP designation for cable operators is unprecedented. BNetzA demonstrated that – contrary to other countries – the major cable operators were able to extract money from the TV stations rather than vice versa.

## **Horizontal regulation**

### *Spectrum management*

Frequencies are assigned by administrative act either ex officio (general allocations published in the Federal Network Agency’s Official Gazette) or upon application (individual allocations). The TKG enables BNetzA to put out to tender or auction frequencies in special cases where demand outstrips the number of frequencies available for a particular application.

In general, no concerns have been reported about BNetzA’s spectrum policy. The auction for broadband wireless access frequencies ended on 15 December. The incumbent fixed line operator did not bid.

As regards the relevant Commission decisions on frequency harmonisation, Germany has implemented the decisions on harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of wireless access systems (Decision 2005/513/EC), on the harmonisation of the 24 GHz range radio spectrum band for time-limited use by automotive short-range radar equipment (Decision 2005/50/EC), on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment (Decision 2004/545/EC) and on the harmonisation of the 169.4-169.8125 MHz frequency band (Decision 2005/928/EC) by adapting the Federal frequency usage plan accordingly.

### *Administrative charges*

An important judgment was issued by the European Court of Justice (ECJ) in September 2006 following a request for a preliminary ruling concerning licence fees imposed by the German NRA on the basis of the old ONP regime.<sup>61</sup> The case concerned two telecommunications

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<sup>61</sup> Cases C-392/04 – i-24 Germany GmbH v Bundesrepublik Deutschland and C-422/04 – Arcor AG & Co KG v Bundesrepublik Deutschland, ECJ judgment of 19 September 2006.

undertakings that had paid fees for their individual licences without contesting those fees within the deadline laid down for appeal. The fees had been calculated on the basis of the anticipated general administrative costs of the regulatory authority over a period of thirty years, to be charged in advance which as such was found unlawful by the ECJ. The German court had also asked the ECJ whether, despite the principle of legal certainty, Germany was obliged to pay back such unlawful fees to undertakings that failed to lodge an appeal in time. The ECJ replied in the affirmative albeit leaving it to the national court to make the final determination whether Germany will have to repay the fees to the undertakings concerned.

## **THE CONSUMER INTEREST**

### **Retail prices**

On the fixed network, many operators provide various special offers such as a reduction of the connection fee or set sums of credit. Furthermore, end-user equipment (modems, etc.) is often offered free to new ISDN or DSL subscribers. Flat-rate tariffs for DSL subscriptions are still falling.

Convergence has become more and more a matter of fact with mobile offers aimed at persuading customers to give up their fixed subscription; the incumbent's mobile subsidiary came up with an offer combining mobile and fixed telephony.

Mobile operators offer inclusive tariffs covering a certain number of minutes of calls per month. Some tariffs allow calls free of charge at certain times, e.g. at weekends. New low-cost mobile operators had entered the market a year before, offering a minimum service but an easy tariff system with just one price for calls to all national mobile and fixed line networks. As a consequence, tariffs have fallen continuously and markedly. Flat rates are also available, allowing the customer unlimited calls to the network of the network operator and to fixed lines.

With regard to pre-paid mobile credit, all network operators had provisions in place that after a certain period of time customers were no longer able to use any unspent credit. Several consumer protection associations brought these contractual provisions to court, and in two cases so far it has been decided that such rules infringe German civil law.

### **Tariff transparency**

The consumer protection association regards the lack of transparency of tariffs as a problem, in particular in the case of mobile tariffs. The situation is reported to be even worse with international roaming tariffs or tariffs for international calls.

### **Universal service**

The previous implementation report pointed out that the new TKG appears to limit the NRA's regulatory discretion and powers. The Commission's concerns have now been addressed in the law amending provisions of the TKG which was adopted at the end of 2006.

### **Number portability**

In 2006 there were more than one million ported mobile numbers, approximately 350 000 more than in the previous year. The average period before the ported number is operative with the new operator was five working days, as in previous years.



## **112**

112 is fully operational in Germany and, according to the German authorities, caller location information is available for both fixed and mobile calls.

Since 112 has been in use in Germany for decades there was no need to run special awareness-raising campaigns. With the introduction of the GSM telephone service and international roaming German citizens were informed by GSM network operators that 112 is used in many European countries. Before the holiday season telephone bills sometimes include a hint about emergency numbers in foreign countries.

### **Must-carry**

Must-carry is regulated in all sixteen Federal States (“Bundesländer”), some of which designate all analogue channels for must-carry. In a few Bundesländer the stations that take part in terrestrial digital TV provision (DVB-T) appear to receive must-carry status for analogue provision via cable, and restrictions are regulated in law and in the cable allocation statutes of the Bundesländer. Some must-carry rules have been called into question by market players. In October 2006 the Commission initiated an infringement proceeding against the legislation of four Bundesländer, without prejudice to the must-carry rules or application of these rules in the remaining Federal States. One of the grievances addressed is the general obligation which has the effect that all available cable channels are reserved for stations identified by the Federal State.

### **Data protection**

Due to inaccuracies and deficiencies in the German law transposing certain provisions of the ePrivacy Directive, the Commission initiated an infringement proceeding against Germany. The Commission’s concerns have now been addressed in the law amending the TKG adopted at the end of 2006.

# ESTONIA

## INTRODUCTION

Estonia has witnessed fierce competition on mobile markets, forcing market players to be forward-looking and innovative. Broadband penetration is the highest amongst the new Member States and above the EU average. These developments, coupled with the expansion of triple play bundles, have ensured that broadband and mobile telephony continue to grow at considerable rates. By contrast, there is no significant infrastructure competition on the traditional fixed telephony market, where penetration levels are low.

On the regulatory side, Estonia has been late in conducting market analyses and this is causing considerable regulatory uncertainty on the electronic communications markets. Competition has not developed properly in the absence of effective remedies targeting, principally, traditional incumbent networks.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Overall, there were no major changes in the regulatory environment in 2006. However, missing secondary legislation was adopted and a few provisions of the Electronic Communications Act (ECA) were amended. In particular, Estonia brought two areas of legislation into line with the regulatory framework. Infringement proceedings, one concerning the definition of relevant markets in the Act and the restriction of the powers of the NRA to modify those markets, the other concerning the failure to maintain the SMP obligations under the transitional regime, were closed by the Commission in the spring and summer respectively.

However, Estonia is far from finalising the market analysis process and is having difficulties with implementing the final measures. The number of appeals and the length of the appeal procedures are still seen as a big obstacle to the practical application of the regulatory framework.

### Organisation of the NRA

The Estonian National Communications Board (ENCB) seems to have sufficient powers to perform its regulatory functions efficiently. Market operators consider the NRA an impartial, independent and transparent regulatory authority. However, the NRA's reported limited resources seem to have played an important role in delays in the completion of market analyses. Furthermore, the question whether the NRA has sufficient powers and adequate financial penalties remains to be examined.

The legal uncertainty about SMP obligations based on the old regime has been successfully exploited in court by the operators concerned, with negative consequences in a number of cases. For example, ENCB was not able to impose bitstream access because of a successful lawsuit by the incumbent. In only one case have the courts of first and second instance ruled in favour of the NRA's attempt to regulate the incumbent's home tariff package. In line with its standard practice, the incumbent appealed against the verdict of the Court of Appeal.

However, at the time of writing it was still uncertain whether the court of highest instance would proceed with the matter.

The large number of appeals has again proved burdensome and time-consuming for the NRA. Some of its decisions have been suspended.

On the other hand, cooperation with the National Competition Authority (NCA) is covered by a specific protocol and has been proceeding satisfactorily. The current penalty threshold which can be imposed by NCA for non-competitive behaviour is set at €30 000 and can rise to €16 million in the case of repetitive breaches.

### **Decision-making**

ENCB was very slow in notifying its market analyses in 2006. At the time of writing this report only two analyses had been notified, covering the markets for mobile call termination (market 16) and wholesale broadband access (market 12). This places the Estonian NRA behind all other NRAs in this respect and led the Commission to launch an infringement proceeding against Estonia.

On market 16 the NRA introduced a glide path approach based on international benchmarking. During the glide path, the NRA is developing a cost model based on bottom-up LRIC that it intends to apply for the next review period. However, two alternative operators have appealed against the remedies imposed on mobile network operators (MNO) and to which the incumbent consented, and ENCB's decision has been suspended by the court. On market 12 three market players agreed with the market definition, whereas the incumbent objected to the conclusion of the market analysis and designation of SMP, stating, *inter alia*, that there are separate local markets where there is either effective competition (in urban areas) or new and emerging markets are being formed (in rural areas). The final decision has not yet been enforced. ENCB decided that it would not be enforced until after the Commission services had been consulted on the draft decision on market 11 (LLU market), since price regulation on both markets is considered interrelated to a certain degree. The incumbent plans to appeal against the final decision on market 12 if the suggested price regulation is maintained.

Old SMP obligations, although very limited in their scope and of transitory nature, remain in force until the completion of market analyses but at the latest until the end of 2007. Although such transitional provisions are envisaged by the regulatory framework, this raises concerns with the Commission services given the slow speed of the entire process.

### **MARKET AND REGULATORY DEVELOPMENTS**

Despite the shortcomings of regulation, the Estonian market is continuing to develop rapidly. Alternative operators are key investors in new infrastructure. Fibre, Ethernet, WiMAX and 3G are key technologies. 3G networks cover only limited parts of the three biggest cities. Two alternative MNOs started providing 3G services on a trial basis in Tallinn in 2006 and are now slowly expanding elsewhere. Fibre-optic cables cover a significant part of the territory of Estonia, while direct undersea connections with Sweden and Finland and links to neighbouring Russia and Latvia guarantee high-quality international communications. Wireless local loop (WLL) services have been rolled out, mainly in 2006, and are now available in 11 counties. Apart from WiMAX technology, which is currently present in limited rural areas, services based on a technology using the 5.2 GHz frequency band are also available to consumers. Ethernet is developing, mainly in new residential apartment areas. In

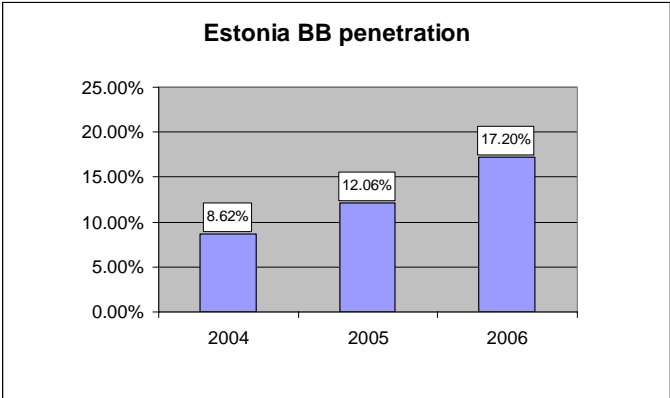
addition, the government endorsed a programme which aims to improve access to permanent internet connection in sparsely populated rural areas, thereby guaranteeing quality internet coverage of 90% of Estonia’s territory. This would guarantee permanent internet access on the same conditions as in densely populated areas. At the moment, over half of Estonia’s territory is already connected with facilities stemming from that programme.

The Estonian market is showing the first signs of convergence between the alternative operators, with at least two companies looking into the possibility of joining forces in providing bundled services.

The NRA organised tenders for allocating frequencies during 2006. One authorisation to provide network services based on broadband technology in the 450 MHz frequency band and the fourth UMTS licence were granted recently.

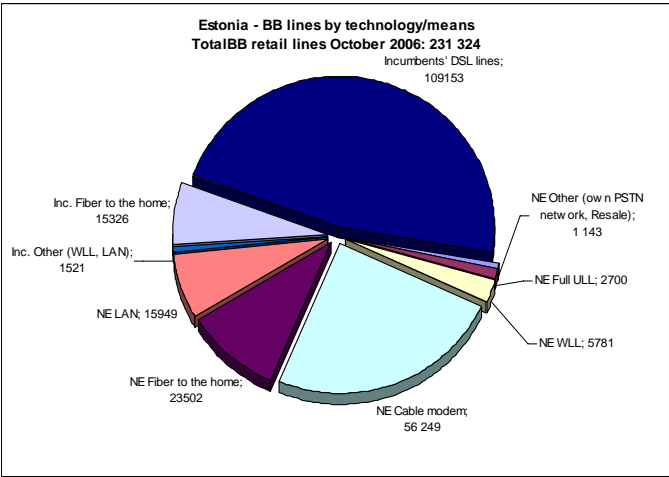
**BROADBAND**

*Market situation*



Broadband penetration is the highest among the new member states countries and has grown by more than 5 percentage points since October 2005. Relative growth was also more marked compared with the previous year, despite the regulatory deficit on xDSL markets. There is strong competition, mainly due to the presence of cable operators (24.32% market share), while some operators,

including the incumbent, have also rolled out fibre-to-the-home (FTTH), which has a 16.79% share among broadband technologies. Local access network (LAN), using the Ethernet protocol, is developing mainly in new residential apartment areas and is in direct competition with the roll-out of cable by alternative operators. In the xDSL segment only 2.4% of all connections are based on LLU, while the market share of the incumbent remains unchallenged at 97%. There are few resellers of xDSL services, while 0.5% of all broadband subscribers choose to use the alternative PSTN network provided by the incumbent’s rival. The incumbent has strengthened its overall position on the broadband market compared with October 2005 and has increased its market share from 53% to 54%.



### *Regulatory issues (including market analyses and remedies)*

Bitstream access is not likely to become available to alternative operators until 2007, since the market analysis was not notified until November 2006. In the meantime, alternative operators with less investment capabilities are forced to focus on reselling the incumbent's xDSL product.

Despite several interventions by ENCB, the existing reference unbundling offer (RUO) provided by the incumbent does not seem to be in line with Regulation 2887/2000 on LLU. In spring 2006 the Commission launched an infringement proceeding in this regard. Furthermore, it seems that the alternative operators are affected by the incumbent's slow response to provide technical information about available local loops, while delivery times for elements and services are also considered too long. Moreover, the time for upgrading LLU in order to deliver xDSL services varies vastly between self-supply and supply to alternative operators. Only remote co-location is available in Estonia. At the same time, prices for full LLU and shared access seem to allow the incumbent to exert some price pressure, which gives it an edge in the race for new customers. For example, mere rental of a copper pair plus the relevant fraction of the connection fee cost €8.95 without VAT, while in September 2006 the incumbent's bundled voice and internet retail rental for new customers stood at €12.46. Similarly, in autumn 2006 the incumbent challenged its competitors with a highly attractive triple play offer, which provided new customers with voice, data and video services for €25.24. Towards the end of 2006 the incumbent raised the retail tariffs for its bundled services. At the time of writing, double play was available from €16.93, while the cheapest triple play customer package was available at €29.07.

As a result of the incumbent's aggressive pricing policy, end-users are charged nothing for upgrading their PSTN access link to a high-speed link.

The incumbent's prices for access to ducts seem to impede development of the broadband market. Together with installation costs, the prices of ducts more than quadrupled compared with the previous year. This applies only to new ducts, since old ducts are still usually unavailable. This longstanding issue is currently being examined by the NCA.

With regard to the leased lines wholesale offer, it appears that the incumbent is the only network operator capable of providing services all over Estonia, while geographically the offers of alternative operators seem to be restricted to connections between the cities. In addition, alternative operators argue that the incumbent gives preferential treatment to its retail unit.

## **Mobile markets**

### *Market situation*

Competition between operators providing networks and services in the mobile segment is far more balanced than in other sectors, and penetration is approaching 113%. There are three MNOs and seven active service providers. All three MNOs have UMTS licences and, together with one mobile virtual network operator (MVNO), have also started providing 3.5G services in Estonia's biggest cities. When the mobile market leader launched its first 3.5G offer (April 2006), based on HSDPA technology that supports mobile internet at a speed of up to 3.6 Mbit/s, this was only the second HSDPA network in the Nordic countries.

### *Regulatory issues (including market analyses and remedies)*

The proposed regulation of the wholesale market for voice call termination on individual mobile networks intends to bring the level of mobile termination rates (MTRs) down from one of the highest (between €0.16 and €0.173) in EU-25 to one of the cheapest (€0.09 per minute) by the end of 2008. Not only the proposed sharp reductions in MTRs but also the symmetrical regulation appear highly controversial to two alternative MNOs, which have appealed against the ENCB decision and succeeded in having it provisionally suspended. Alternative MNOs fear that, in the absence of the relevant fixed wholesale and mobile retail regulation, the proposed symmetrical regulation of MTRs would not reflect the actual costs of the highly converged fixed incumbent and of the leading mobile operator. This would allow price dumping of mobile on-net prices and cross-subsidisation of the revenue between the incumbent's two converged companies. Reduced profits on MTRs could eventually result in retail price increases, since the alternative MNOs might consider passing on to end-users the loss sustained in wholesale operations.

### **Fixed**

#### *Market situation*

There is no significant infrastructure competition on the traditional fixed telephony market, where penetration remains low at 33%. Some 7.6% of subscribers use alternative providers for direct access, whereas five alternative operators using carrier selection (CS) or carrier pre-selection (CPS) services provide end-users with a choice.

### *Regulatory issues (including market analyses and remedies)*

The vast majority of network operators seem to include call set-up charges in their origination fees. As a general rule, interconnection prices for local and single transit remain amongst the highest in EU-25 and show an upward trend. The alternative, in particular cable, operators are largely responsible for the incessant escalation of termination rates.

The level of CPS and CS pricing leaves alternative operators little room for a decent mark-up, if the point of interconnection is at national level. Given the regulatory situation, one major alternative operator ceased to provide fixed telephony services, while another key player plans to pull out in the near future. CPS and CS seem to be viable in the long run only for international calls.

The incumbent is continuing to promote a customer package where, after the tenth minute, calls are free of charge. Since the ENCB's attempt to regulate the incumbent's offer had been suspended by the court of first instance, the NRA appealed against the ruling to the court of second instance. The date of the next court session had not yet been decided at the time of writing.

## **Broadcasting**

### *Market situation*

According to a report prepared for the Commission in 2006,<sup>62</sup> some 51% of Estonian households were using terrestrial, 8% satellite and 41% cable as the main means of receiving TV content at the end of the third quarter of 2005. At that time, only 1.5% of all households were using digital TV reception (mainly satellite). The commercial TV broadcasting sector has consolidated since the late 1990s into two companies fully controlled by the Scandinavian media. The government has announced that analogue television broadcasting should come to an end in 2012, while Estonia is planning to develop nine nationwide plus a few regional digital broadcasting networks.

### *Regulatory issues (including market analyses and remedies)*

Together with the entry into force of the ECA, the procedure for granting rights of use of broadcasting frequencies was amended. In order to implement the new regulation, the Ministry of Culture and the NRA developed a new procedure for granting frequencies.

Despite changes in the law, the Estonian broadcasting transmission services market is still lightly regulated, as it has not yet been analysed by the regulator.

## **Horizontal regulation**

### *Spectrum management*

In June 2006 a public tender for the provision of network services based on broadband technology in the 450 MHz frequency band was organised by ENCB. The successful alternative operator was granted an authorisation to use radio frequencies in November 2006. Its network should provide end-users with broadband communications services with data transfer rates of not less than 144 kbit/s. The basic selection criterion specified in the call for tender was the speed with which the tenderer would be able to deploy a network covering the whole of Estonia. This should ensure that wireless internet connections will be available to end-users in the near future.

In September 2006 a public tender was announced for a fourth frequency authorisation for UMTS. Since three frequency authorisations for UMTS systems had been granted by direct offer to the existing MNOs in 2003, they were not allowed to participate in the tender. The starting price for auctioning the frequency authorisation to be granted was set at €4.47 million. In November 2006 the NRA announced the winner of the public tender, a private equity company which was prepared to pay nearly €6.4 million for the frequency authorisation. After the company failed to pay, ENCB decided to award the licence to the second highest bidder.

ENCB announced that digital television frequencies are to be tendered shortly, while the regulator is also investigating the possibility of granting UMTS authorisation in the 900 MHz frequency band. In accordance with the Estonian frequency plan, the winner of the public competition for the fourth UMTS licence may also apply for the fourth GSM licence in the 1800 MHz band.

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<sup>62</sup> Source: Dataxis 2006: "Digital television data, EU market for digital television".

Estonia has implemented three of the four Commission Decisions on spectrum harmonisation. Decision 2005/928/EC is expected to be implemented in the first half of 2007.

### *Rights of way and facility sharing*

The Estonian local authorities are responsible for granting rights of way and, in some cases, have been involved in the roll-out of networks. There are no specific procedures to ensure a transparent and timely rights-of-way process. While local authorities impose no sector-specific taxes on market players, the government plans to introduce non-sector-specific taxation that would place an obligation on owners of networks and facilities to compensate for their rights of way.

## **THE CONSUMER INTEREST**

### **Tariff transparency**

ENCB has developed a web-based price comparison service, enabling consumers to calculate and choose the most suitable offer on the market from the tariffs of all operators.

### **Universal service**

In July 2006 ENCB organised a public tender for designation of a universal service (US) provider, since the existing designation was due to expire by the end of 2006. In November 2006 the alternative operator was designated for a period of five years, starting in January 2007. The designated undertaking has the obligation to provide connection to the public telephone network as part of the US. It is under no obligation to provide comprehensive directory or comprehensive phone directory enquiry services, nor to provide public payphone services, since these three components are reasonably accessible to end-users at an affordable price on a competitive basis. Additional requirements include provision of data at a speed of up to 56 kbit/s and a fixed connection tariff for end-users set for a period of one year. No compensation is envisaged for provision of the US.

### **Emergency services (112)**

Estonia has set up a modern and efficient network of four centralised public safety answering points (PSAPs), all at regional level. It has also achieved a good level of coordination between the different emergency services. Caller location information is available from both fixed and mobile networks. Estonia has introduced a “pull” technique for caller location identification.

### **Number portability**

Following the relatively straightforward introduction of number portability in 2005, porting of numbers ran into considerable implementation problems during 2006. Due to an unresolved dispute between the database manager and the NRA, based on an alleged failure by the database manager to comply with its obligations, some 100 000 requests have not been processed since October 2005. The Commission services are looking into the matter.



## **Must-carry**

The ECA imposes must-carry obligations on the SMP undertakings and cable operators only. Cable operators are under an obligation to transmit free of charge the TV programmes of the Estonian public service broadcaster and those of all terrestrial broadcasters received within a cable distribution network area and compatible with the technical requirements.

# IRELAND

## INTRODUCTION

The Irish electronic communications market saw competition intensify in the mobile sector in 2006. The mobile industry is already offering new 3G (3rd generation) based services (e.g. mobile TV). Broadband penetration is still below the EU-25 average, but has improved substantially, partly driven by the uptake of alternative platforms such as wireless local loop. In the fixed market, alternative operators have succeeded in acquiring a visible market share of fixed calls. The fixed incumbent has announced plans to roll out a next generation access network and provide WiMAX broadband services in urban locations.

In an effort to speed up broadband adoption, the national regulatory authority, ComReg, continued to tackle local loop unbundling-related problems. However, effective implementation of remedies in practice remains an issue. While ComReg has taken a number of regulatory initiatives in the fields of spectrum management and consumer protection, the expected reforms of the Wireless Telegraphy Act would appear to be more than necessary.

## REGULATORY ENVIRONMENT

### Main regulatory developments

ComReg has adopted a pro-active approach to addressing a broad range of issues, from spectrum management to innovative services and consumer protection. However, strict scrutiny of regulatory action by the Electronic Communications Appeals Panel (the Appeals Panel, the Panel) and the courts, combined with the absence of a threat of tangible enforcement measures, has meant several obligations imposed on the incumbent have not always been applied in practice.

### Organisation of the NRA

ComReg's enforcement powers are very limited: it cannot impose fines itself, and the maximum fine that can be imposed by a court upon ComReg's request amounts to only €3 000 (i.e. no turnover fines are possible). This legislative setting might explain in part ComReg's preference for softer regulatory tools, including facilitation of negotiations and codes of practice combined with "naming and shaming". However, as demonstrated by the local loop unbundling (LLU) development process, consensus building, especially if not backed by proper enforcement powers, does not always allow ComReg to achieve tangible implementation results within reasonably short timeframes.

This situation has prompted the Department of Communications, Marine and Natural Resources (the Ministry) to initiate legislative changes. The draft Communications Regulation (Amendment) Bill, 2006, provides for enhanced ComReg enforcement powers by way of (a) increased penalties; (b) new types of offences, some carrying heavy penalties; and (c) increased powers of investigation (e.g. in order to obtain evidence). In addition, the Bill will provide ComReg with certain powers concerning enforcement of general competition law. Since December 2002, a cooperation agreement has been in place between ComReg and the Competition Authority. In practice, the two institutions mostly work together in the market review process.

It appears that the use of Appeals Panel has set in motion a rigorous appeals process, scrutinising all aspects of ComReg's regulatory decisions. The time taken to hear these appeals, combined with certain procedural aspects (such as an intermediate procedural step of referring disputes to the Panel by the Minister), has meant that the process has proved to be lengthy. In one appeal, which took over a year, the Appeals Panel pointed out in its decision that, while it was alert to the guideline timescale of four months set in the Regulations governing appeals, it was also mindful of the importance of fully adhering to the procedural requirements and the imperatives of natural justice. Therefore, in the light of the experience gained in this appeal, that Panel believed that the guideline timescale of four months would be difficult to achieve, except, perhaps, in the simplest of cases. The Ministry admitted that the appeals mechanism has not delivered on some of the initial aims, especially as regards speed and cost of proceedings.

A general review of appeals procedures in a number of sectors (including electronic communications) is ongoing at central government level. The creation of a special cross-sector court and expanding the jurisdiction of the existing Commercial Court are among the options under consideration.

### **Decision-making**

ComReg has analysed and notified all the markets identified in the relevant Commission Recommendation. As regards future developments, ComReg has planned for the second round of market analysis notifications to start in the second quarter of 2007. However, imposition of final remedies and their implementation is a matter of concern. In particular, ComReg has only communicated six adopted measures of the total of 26 draft measures notified. This is partly due to appeals. For instance, ComReg's market analysis decision concerning the market for wholesale voice call termination on individual mobile networks was declared null and void in relation to one of the mobile operators. Moreover, as regards a number of interconnection (call origination, transit, termination) markets, ComReg, drawing on experience in the appeals procedures, has itself decided not to proceed to implementation, and to do the analysis again on the basis of the most recent data.

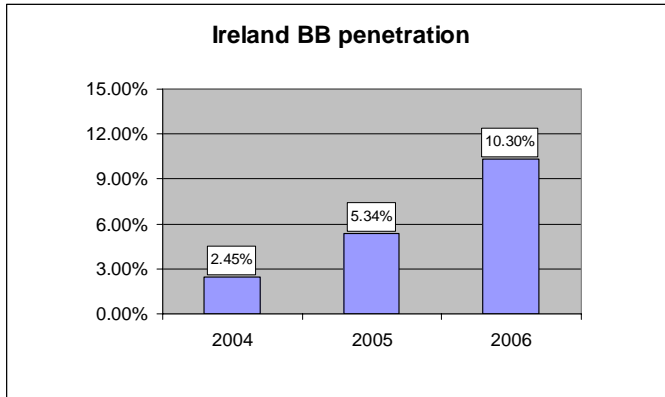
## **MARKET AND REGULATORY DEVELOPMENTS**

In September 2006, ComReg announced a next generation access network (NGN) work programme and is starting consultations with all the stakeholders involved. So far, the fixed incumbent's plans to develop an NGN are not entirely clear. However, the fixed incumbent has already announced plans to roll out a NGN access network to 37 exchange areas covering approximately 30% of the population.

Despite ComReg's regulatory efforts (directions opening 076 number ranges to voice over the internet protocol (VoIP) services and guidelines on treatment of consumers in 2005 plus a review of the VoIP framework in 2006), the actual market uptake of VoIP appears to have been quite slow, with the exception of large business users. It also appears that market players are not planning a quick launch of hybrid fixed-mobile services, although one of the mobile operators is trialling a home phone service using a hybrid fixed-mobile device.

## Broadband

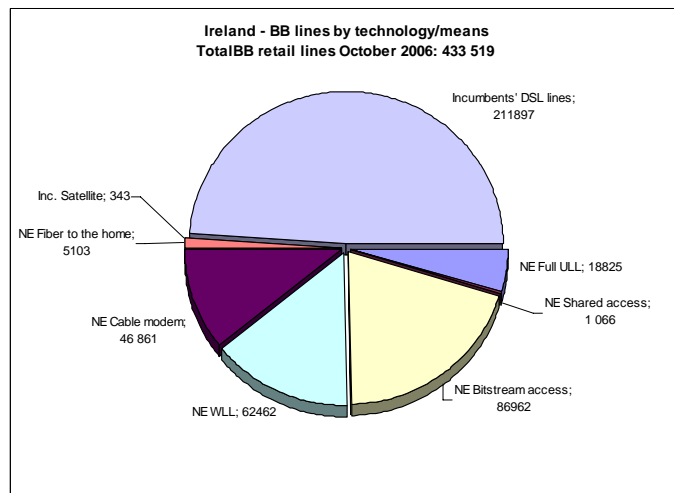
### Market situation



In October 2006, broadband penetration reached approximately 10.3% (compared to around 5.3% in October 2005). However, Ireland continues to lag considerably behind the EU-25 average (at 15.7%). Broadband services are provided through a number of competing infrastructures, with wireless local loops and cable playing increasingly important roles, but digital subscriber

lines (DSL) remain the dominant technology. 34% of all DSL subscriptions are supplied by alternative operators. Overall, the broadband market share of the fixed incumbent decreased over the period 2004-2006.

As regards one of the most important Irish broadband projects - Metropolitan Area Networks (MANs), its actual impact on the retail broadband market remained marginal in 2006. User/consumer representatives call for better information on their availability, development status and use (e.g. lit or unlit fibre). These networks also seem to be a rather expensive connectivity solution, partly due to the fact that MANs are not connected nationally. The Ministry noted that it is too early to judge the effectiveness of MANs, because the concession agreement with the managing company was signed only in 2004 and the last MAN was handed over only in December 2005. However, it admitted that national connectivity is an issue.



The Irish government is also looking into ways of extending access to broadband to the remaining 10% of the population that is not covered by the existing broadband infrastructure due to the lack of economic viability of providing services in the areas concerned. The problem could (reportedly) be partly addressed by the fixed incumbent itself (in commercially marginal areas) through its WiMAX service.

Wireless local loop operators also offer broadband (currently - 14, including the fixed incumbent). However, availability of spectrum is a limitation to further expansion in the Dublin area. Therefore, ComReg is currently looking at making additional spectrum available in the 3.5 GHz band and is examining various other options, such as granting national or regional licences rather than local area licences.

### *Regulatory issues (including market analyses and remedies)*

A faster increase in broadband penetration in Ireland appears to be held back by a lack of real progress in LLU penetration. The main LLU-related issues still persisting include (a) absence of seamless migration from various wholesale products of the fixed incumbent to LLU (even though seamless migration is already ensured between, for example, two bitstream operators); and (b) manual LLU-synchronised number portability solution of comparatively low order processing capacity. These issues result in significant user cut-off periods and hinder investments by alternative operators. The fixed incumbent maintains that it has no legal obligation to create migration possibilities and stresses that widespread migration would lead to a “stranded assets” situation. Apart from the manual number portability solution synchronised with LLU, the main achievements so far include allowing WLR (wholesale line rental) and line share on the same line. Following an industry agreement, some improvements to the number portability solution (e.g. an enhanced electronic ordering gateway) would be available from January 2007. ComReg is continuing to publish status updates concerning the development of LLU.

It also appears that the classic standalone LLU product of the fixed incumbent is still suffering from quality issues (such as delays in delivery and fault management). The monthly rental of both fully unbundled local loop and shared access slightly increased in 2006 and total prices (including connection fees) remain amongst the highest in the EU. In contrast, prices of bitstream access went down substantially compared to 2005. Bitstream (close to 90 000 lines compared to approximately 20 000 LLU lines) remains the predominant access platform for alternative operators.

## **Mobile markets**

### *Market situation*

In October 2006, the mobile penetration rate reached 110%, compared to 98% in October 2005. The market shares of the three largest operators are approximately 47%, 35% and 18% (i.e. the third operator increased its market share from 12% in 2005). All three Irish 3G operators are quite active in deploying new services: mobile TV (actual offering or testing) and mobile broadband (planning for immediate future). High usage of mobile data services is a particular feature of Irish mobile markets.

There are no MVNOs (mobile virtual network operators) on the Irish market yet. Alternative operators put this down to difficulties in persuading mobile operators that opening their networks to MVNOs could also be beneficial to operators themselves.

### *Regulatory issues (including market analyses and remedies)*

As regards the mobile call termination market, all operators but one have SMP (significant market power) status. (SMP designation of that one operator was declared null and void by an Appeals Panel). Furthermore, asymmetric remedies apply to a mobile network operator who is a new entrant. ComReg has not imposed any specific MTR (mobile termination rates) caps or glide paths, taking into account the operators’ voluntary reductions effective from January 2006 and their voluntary undertakings to further reduce MTRs in January 2007.

As regards the mobile access market, the Appeals Panel decided by consensus between ComReg and the other parties to annul ComReg's decision to jointly designate the two incumbents as SMP operators. ComReg is in the process of re-analysing the market.

## **Fixed**

### *Market situation*

The incumbent's market share (measured by revenues) in the fixed telephony market remained slightly above 70% in 2006. However, 24% of subscribers already used an alternative provider for voice telephony services (the majority of which were carrier pre-selection (CPS) and WLR operators).

In 2006, one alternative operator dropped out of the CPS/WLR business. This followed a commercial dispute and the eventual withdrawal of associated wholesale facilities by the fixed incumbent. ComReg intervened to arrange a temporary connectivity solution for the affected end-users. Some alternative operators partly attributed this business failure to the tight CPS/WLR margin.

### *Regulatory issues (including market analyses and remedies)*

In general, ComReg has chosen a full set of obligations. In the fixed call termination market, ComReg decided to impose an FL-LRIC (forward-looking long-run incremental cost) based cost orientation obligation on the fixed incumbent and benchmarking for alternative operators with SMP in this market. However, final measures were not adopted in 2006.

Alternative operators are concerned about the high retail price for rental of the fixed incumbent's lines, which directly reflects on the prices of the fixed incumbent's wholesale products. The fixed incumbent explains that the high price is due to such factors as the scarce territory population pattern in Ireland, geographical averaging and the increase in copper prices. In August-September 2006, ComReg consulted stakeholders on a retail price cap as a remedy on fixed narrowband access markets. It remains to be seen how this price cap will be structured and whether the rental price will come down as a result.

## **Broadcasting**

### *Market situation*

Ireland appears not to have finalised its digital terrestrial TV plans yet and has not made known the digital switchover date. Nevertheless, trials with digital terrestrial broadcasting are ongoing. Some market players questioned a business case for digital terrestrial broadcasting, referring to the rapid uptake of cable and satellite digital programmes (generally, Irish users are quite evenly spread between terrestrial (42% of households), cable (31% of households) and satellite (27% of households) platforms<sup>63</sup>). Only one alternative operator provides (on demand) IPTV. In 2006, the fixed incumbent started live simulcasting of sports content to its broadband customers. An additional video-on-demand service allows seven-day access to recent programming.

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<sup>63</sup> According to the report by Dataxis "Digital television data: EU market for digital television"

## **Horizontal regulation**

### *Spectrum management*

Slow progress of reform of the Wireless Telegraphy Act is a continuing issue of concern. As long as the current legislative framework is in place, ComReg will find it difficult to adopt modern approaches to spectrum management (e.g. spectrum trading) on a large scale. Other legislative initiatives seem to have higher priority in Ireland. In the meantime, the current terminal-based approach seems readily enforceable (unauthorised equipment is easier to detect and use as evidence than unauthorised use of radio spectrum).

The National Table of Frequency Allocations for Ireland (the 2004 version, which is the most recent one) does not reflect the allocation of radio spectrum for the uses provided for by the Commission's radio spectrum harmonisation decisions. Moreover, no secondary legislation (regulations on licensing or licence exemption) appears to be in place to ensure implementation of these decisions. The Commission services are looking into this matter.

ComReg has still to deal with the award of the fourth 3G right of use for radio frequencies. In February 2006, ComReg withdrew its offer of a 3G licence to an operator on grounds of inadequate security for performance of licence obligations. In October 2006, the High Court upheld ComReg's withdrawal decision. ComReg has announced its intention to offer the fourth 3G right of use to the second-placed operator in the original auction - the fixed incumbent. One of the conditions attached to the right of use for radio frequencies of a 3G operator is the obligation to meet reasonable access requests concerning its network at a "retail minus" price, which apparently goes beyond the conditions which may be attached to rights of use for radio frequencies under the Authorisation Directive. The Commission services are looking into this matter.

Many market players praised ComReg for its flexible and attractive trial licences regime. An interesting and useful initiative is the coordination between Ofcom (the UK national regulatory authority) and ComReg of their respective procedures in issuing spectrum authorisations covering the whole island. On the other hand, some market players criticised ComReg for launching (in August 2006) an auction in the 26 GHz frequency band (fixed links) at what they considered to be a very high entry level price. ComReg is currently exploring a number of alternative approaches that would allow the market to determine the appropriate value of the spectrum.

### *Rights of way and facility sharing*

Many market players complain about the lack of consistency and predictability in the way rights of way are granted by local authorities of different counties. On the other hand, decisions of local authorities granting rights to place infrastructure on public roads seem to be effectively scrutinised and, if necessary, corrected (albeit with a delay and at additional cost) by the special appeals board. The Department of the Environment and Local Government is in the process of drafting development management guidelines for planning authorities, which, while not dealing specifically with rights of way, are intended to ensure consistency in the planning process.

The fixed incumbent highlighted the practice of some property developers of entering into exclusive contracts for the provision of electronic communications services to future residents of their sites with alternative operators, which, as a result, prevent the fixed incumbent from

fulfilling its universal service obligations. At present, ComReg cannot apparently mandate facility sharing where the relevant infrastructure is not owned by an electronic communications service provider, because the owner would not hold an authorisation from ComReg. A provision in the forthcoming Communications Bill will enable ComReg to enforce any decision it makes on physical infrastructure sharing against other undertakings, such as property developers. In any case, in its July 2006 Response to Consultation on the Future Provision of Telephony Services under Universal Service Obligations, ComReg specified procedural steps that should be taken by the fixed incumbent in order to demonstrate the reasonableness of its efforts to meet requests for connections to its network.

## **THE CONSUMER INTEREST**

### **Tariff transparency**

ComReg continued to be active in promoting consumer interests in 2006 (e.g. expanding its mobile tariffs comparison internet site to include fixed and broadband services, organising briefings to operators, awareness campaigns at public events, advertising campaigns, and issuing consumer guides).

The work of the joint Ofcom and ComReg working group on mobile roaming has resulted in the availability of a wide range of tariff options, effectively offering all-island rates, in Ireland.

### **Universal service**

In July 2006, ComReg redesignated the fixed incumbent as the universal service provider until June 2010. This redesignation concerns the full set of universal service obligations with the exception of the directory enquiry services, which, in ComReg's judgment, are provided by a number of operators on commercial basis. The fixed incumbent has made a formal request to ComReg for compensation of the net costs involved in meeting these universal service obligations.

Moreover, ComReg has established a Forum to promote greater attention to the needs of disabled users among electronic communication service providers. This Forum is attended by both operators and leaders of groups representing disabled users.

### **Emergency services (112)**

In 2006, an infringement case was opened against Ireland on the grounds that, contrary to the requirements of Article 26 of the Universal Service Directive, caller location information was not available to emergency authorities in Ireland for calls made from mobile phones. However, the case was later closed after the Irish authorities had informed the Commission that caller location information was available in a pull mode, i.e. on request. The Ministry is, however, in the process of examining the deployment of a more sophisticated 112 caller location (push) system. Market players are concerned with the financing of this system. Furthermore, as a parallel initiative, an industry steering group is exploring ways of replacing the current manual 112 caller location system with an automatic one.



## **Number portability**

The Commission services are examining whether the current mobile number portability regime works against new entrants, because (a) agreements with all operators are necessary in order to join the system, which takes quite a lot of time; and (b) the charge – €20 per port (one of the highest in the EU) – disproportionately affects new entrants, which by definition have a smaller customer base. Nevertheless, approximately 690 000 mobile numbers were ported in 2006, compared to 330 000 ported mobile numbers in 2005.

## **Data protection**

The Irish unsolicited marketing calls opt-out register (launched in July 2005) did not initially contain subscribers who had earlier elected not to have their details accessible through the publicly available directory services. Upon direction by ComReg and the Office of the Data Protection Commissioner, such ex-directory numbers were included in October 2006. According to the data provided by ComReg, approximately 860 000 numbers are in the database.

# GREECE

## INTRODUCTION

The Greek electronic communications market presented a contrasting picture in 2006. While there was intensive competition and consolidation in the mobile sector, the fixed incumbent maintained its position as the only access network provider on the fixed market. Also, regulatory and policy measures are being taken to address the poor broadband penetration record.

Greece was the last Member State to notify measures transposing the European regulatory framework into its national legislation, and the national regulatory authority devoted a lot of energy to catching up on market reviews and has issued a number of regulations as part of its obligations under the new law. In the meantime, as during previous years, legal uncertainty remains an issue in several areas as a result of ongoing disputes and the length of time involved in appealing decisions.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The long-awaited transposition of the regulatory framework was completed with the adoption of Law 3431/2006 on Electronic Communications and Other Provisions which entered into force in February 2006, while Law 3471/2006 adopted in June transposed Directive 2002/58/EC on the processing of personal data and the protection of privacy in the electronic communications sector. Although the new regulatory environment brought considerable legal certainty to the market, it still lacks some of the necessary secondary legislation which should have been adopted 6 months after the entry into force of the new law. The Commission has still one infringement proceeding against Greece for non-transposition of the regulatory framework, with regard to broadcasting services that were explicitly excluded from the new national law. The Commission services are following up this matter and is also now looking into the missing secondary legislation cases.

Following transposition, the Greek NRA (EETT) issued regulations in five areas: public consultation procedures, general authorisations, use and assignment of rights of use for radio frequencies under general authorisations, antenna construction and terms of use for individual radio frequencies or radio frequency bands.

In an effort to catch up with implementation, EETT launched a large number of parallel public consultations and market analyses. In addition, it called for comments on the secondary legislation to be submitted to the Ministry of Transport and Communications (e.g. on general licences, spectrum trading, the national numbering plan, universal service and masts).

As indicated in previous implementation reports, there have been delays in submission of regulatory accounting data from the incumbent to the NRA. EETT has been setting temporary wholesale tariffs until the incumbent has proved, or the external auditors have calculated, cost orientation. This can result in a situation where temporary prices apply for more than a year until cost-oriented prices are approved. Alternative operators are then asked to modify their payments retroactively for the period concerned, which may have obvious adverse cash-flow consequences. A high fine was imposed on the incumbent for delaying submission of data for

2005. Currently the NRA is examining whether the margin for the provision of broadband services is being squeezed and whether prices for 2006 are cost-oriented.

EETT has analysed and approved a series of mergers and acquisitions, including the takeover of the smallest mobile operator by one of the larger ones and the purchase of the biggest chain of electronic communications retail products by one of the leading mobile operators.

### **Organisation of the NRA**

The new law has assigned to EETT guarantees of personal and functional independence. The adoption of the new law brought changes to the appointment of EETT's board. The President and two Vice-Presidents are now selected by the Council of Ministers following a parliamentary hearing, no longer by the qualified majority-voting of the Conference of the Presidents of the Parliament. Alternative fixed operators considered that the new law makes EETT more vulnerable to political influence and less independent.

EETT is a self-funded regulator. It imposes administrative fees on all undertakings, which are used to cover its total expenses, while 30% of the receipts is saved in a reserve fund. EETT is able to impose fines ranging from €7 000 to €2 million in cases of breaches of the national electronic communications law. EETT is also the competition authority for electronic communications and these fines may be considerably increased when EETT is exercising its competences under national or EC competition law. In this case additional fines may be imposed up to 15% of the undertaking's annual turnover.

The new law provides for 220 permanent employees (currently, there are 136 permanent employees). Vacancies are currently being covered by experts' working groups. EETT would fulfil its missions in a more efficient way if all posts were effectively budgeted and allocated.

As far as operators' expectations towards EETT are concerned, all have stressed the importance of timely decisions resulting from hearings (EETT claims that, on average, four months are needed for issuing a decision) and of the transparency in the publication of these decisions. Fixed alternative operators referred to long delays in EETT's decision-making claiming that on a number of cases, decisions on hearings were pending for more than a year. Given the requirements following the late transposition of the regulatory framework, operators complained about both the number of parallel consultations and the tight deadlines imposed. They considered this as a "missed opportunity" of proper debates which would have resulted in better implementation. The incumbent called on EETT to apply clearer and longer-term policies that would encourage operators to invest in infrastructure instead of simply reselling. Alternative operators have called on EETT to intervene with regard to restrictive conditions imposed on them by the incumbent with regard to co-location and LLU.

Operators continue to express frustration about the lack of any decision by the highest administrative court, the Council of State (to which appeals against the NRA decisions are made), with some decisions pending since 2001. A negative side-effect of this delay has been the avoidance to adhere to obligations, mainly imposed on the incumbent, on the grounds that final decisions on appeals were pending. In an attempt to improve the appeal system, the newly adopted law made provisions for appeals to the Administrative Court of 2nd Instance. Alternative fixed operators expressed concern about a decision of the Council of State that this provision of the law was unconstitutional. The Commission services are looking into this matter.

Regarding out-of-court disputes resolutions between undertakings, the NRA can adopt interim measures at operators' request prior to final settlement of the dispute only in specific cases (irreparable damage or public interest reasons). Obtaining an interim measure can take three days, but the subsequent decision can take several months. Disputes mostly concerned C(P)S win-back practices and alternative operators' debts to the incumbent and vice versa. Disagreements regarding interconnection services on the incumbent's network intensified switch-off threats, sometimes leading to actual interruptions of interconnection services. EETT has been calling on the parties respectively not to interrupt the service<sup>64</sup> and to provide letters of guarantee for a set amount.

## Decision-making

Due to the late transposition of the legal framework, EETT was not able effectively (and formally) to start the market analysis and notification process until early in 2006 and managed to notify and propose remedies for sixteen relevant markets. The law gives EETT no specific responsibilities for the analysis of the broadcasting transmission services market (market 18).

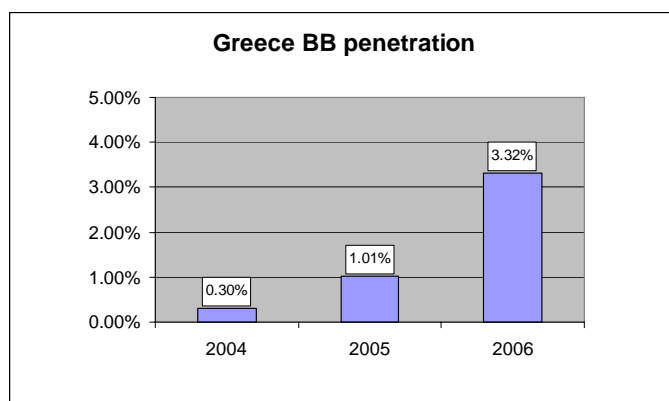
In general, EETT has imposed the full set of regulatory obligations. Some operators claimed that the proposed remedies did not reflect the problems identified in the analysis of some relevant markets. Some also complain that non-implementation of the obligations imposed by OTE (for example, for cost-accounting separation and broadband retail offers) was creating difficulties and uncertainty in the market.

Despite EETT's efforts to improve enforcement of remedies, in view of the time taken for appeal decisions and the scope of the EETT's powers to impose financial sanctions, the effectiveness of the remedies is still open to question.

## MARKET AND REGULATORY DEVELOPMENTS

### Broadband

#### *Market situation*



The broadband market in Greece comprises mainly xDSL lines with a limited number of wireless and fibre-optic connections. There is currently no cable-based broadband infrastructure.

The total number of broadband lines rose from 112 258 in October 2005 to 369 653 in October 2006, an increase of 229%. This growth can be attributed mainly to the decrease in ADSL retail prices, to the doubling or even tripling

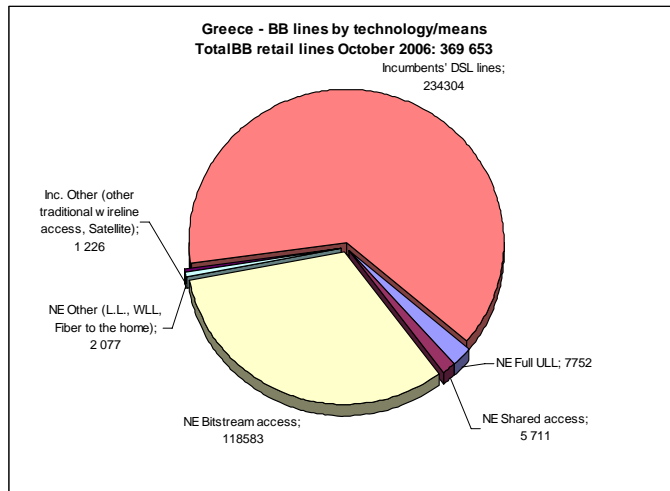
of ADSL speeds at the old prices and to operators' aggressive advertising campaigns. As a result, the penetration rate for retail broadband access increased considerably to 3.32%. Broadband seems to be becoming a higher priority for Greek businesses and consumers.

<sup>64</sup> It must be noted that at one occasion the incumbent cut off interconnection despite EETT's provisional order.

Compared with the EU-25 average of 15.7%, however, the penetration rate for retail broadband access in Greece is still the lowest in the EU.

The incumbent's market share of retail broadband connections at the end of September 2006 was 63.7% compared with 73.6% a year earlier. Its DSL lines increased from 82 002 in October 2005 to 234 304 in October 2006.

There has been a considerable increase in LLU lines, from 5 413 in 2005 to 13 463 in 2006. EETT expects this growth to continue and actually to accelerate sharply as a result of the rapid increase in the number of physical co-locations. Following the 2005 audit of the incumbent's costing system, the monthly fee for shared access was cut from €4.05 to €2.08 while the monthly fee for fully unbundled loop was raised slightly from €8.10 to €8.70.



Bitstream access lines recorded the biggest increase (from 23 069 lines in 2005 to 118 583 this year). Other technology platforms have also been used by operators to provide broadband. Wireless local loop increased by 4.8% and new entrants' leased lines increased by 8.6% this year. Fibre-to-the-home technologies have entered the market with 480 access lines (1% of all broadband lines).

EETT has made great efforts on construction of co-location facilities for the alternative operators at the incumbent's local exchange. At the same time, the incumbent has also included increased broadband penetration as one of its main targets. The number of sites where physical co-location was offered increased from one (October 2005) to 30 (October 2006) and was expected to reach 150 by early 2007. Distant co-location is now available at 48 sites. In line with the efforts to encourage broadband infrastructure, in July 2006 EETT also organised an auction of a fourth 10-year WLL licence for development of WiMAX infrastructure in the 3.5 GHz band. The undertaking awarded the licence has to provide its services to 20% of the population in each of the seven geographical regions of Greece. The project must be completed in four years.

New services are now becoming available to Greek consumers, including VoIP (at least from four operators), triple play, HSDPA and IPTV services with ADSL and LLU broadband connections.

The government launch of the DIODOS project to facilitate cheap ADSL internet access for all higher education students was a great success, in terms not only of the number of ISPs and network operators taking part but also of the immediate market interest, with ADSL prices decreasing considerably.

### *Regulatory issues*

EETT found that the incumbent operator had nearly 100% of the low-speed narrowband access market and imposed a remedy to force it to rent out wholesale lines.

In September the incumbent submitted to EETT its draft reference unbundling offer (RUO) to update the existing RUO which has been in place since 2001. Both the RUO and the broadband reference offer had been put to public consultation by EETT at the time of writing.

Many operators have complained about not having clear guidelines and about facing obstacles to co-location in the local exchanges of the incumbent, limits on the number of loops made available and the lack of a service level agreement.

### **Mobile markets**

#### *Market situation*

The mobile telephony market is continuing to grow. The number of active subscribers reached 11.1 million in October 2006. The mobile penetration rate stands at 100%, a significant increase from 89% a year earlier. There are four mobile providers serving the Greek market. At the end of September 2006 the leading mobile operator had 40.52% of the market in terms of number of subscribers. Its main competitor had a market share of 30.83% while the third and fourth mobile providers had a combined market share of 28.65%.

Availability and take-up of 3G services and mobile broadband products and services have continued to increase. Three of the four mobile operators have both 2G and 3G licences, while the fourth has only a 2G licence.

#### *Regulatory issues*

The mounting competition on the mobile market was identified by EETT in its notification of the access and call origination market for public mobile telephone networks (market 15) which found this market effectively competitive.

Concerns were raised by the mobile operators about the analysis of the voice call termination market on individual mobile networks (market 16). EETT notified this market three times before it adopted final measures. The mobile operators expressed dissatisfaction with the tight (10-month) glide path imposed for convergence of mobile termination tariffs towards cost orientation.

Since November 2006 a special levy has been imposed by law on post-paid mobile subscriptions which increases in proportion to different levels of monthly bills. Mobile operators consider this to be indirect taxation that could distort competition since no similar tax is imposed on fixed bills.

## **Fixed**

### *Market situation*

The national fixed calls market is still deemed to lack effective competition. As can be seen from the graph, the incumbent is still very strong on the fixed calls market with a market share of 74.01%. Following a sharp decline in previous years, the incumbent's market share has stabilised. More specifically, the incumbent maintains a high market share in local calls with 78.4% this year (down by 3 percentage points on the previous year), 73.1% in long-distance calls (down by 1.5 points) and 73.6% in international calls (up by 5 points). The incumbent's share of the market for international calls decreases significantly if calls via pre-paid cards are taken into account.

There were 82 fixed voice telephony operators (data not comparable with previous years given the change in the authorisation regime). Fourteen operators are offering fixed voice telephone services over a leased line or their own network. These include the incumbent but not operators acting as resellers or suppliers of pre-paid services.

Interconnection charges for call termination on the incumbent's fixed network remained stable for single transit (€0.89 in October 2005 and €0.86 in October 2006) and decreased for double transit, from €1.30 to €1.10.

### *Regulatory issues*

Delays in the approval of interconnection charges by EETT, due to late submission of data by the incumbent, has caused frustration on the part of the alternative fixed operators and created instability on the market. Interconnection rates for 2005 were published in June 2006 with EETT setting temporary charges. Operators complained that they had to cover retroactively the difference between the temporary charges and the higher prices set by EETT, otherwise they faced threats of service interruption by the incumbent. It is hoped that a new cost-accounting methodology adopted by EETT will solve this problem.

The current Reference Interconnection Offer (RIO) has been in place since 2003. The incumbent intended to submit its new RIO once the final decision was taken on the relevant market for call termination on individual public telephone networks at fixed locations (market 9).

In 2006 there are 935 000 activated carrier pre-selection (CPS) lines. The issues identified in last year's implementation report were addressed in 2006 when EETT adopted changes to the existing CPS system. The previous asymmetrical CPS procedures have now been replaced by a system in which consumers migrating to an alternative operator are asked to submit the deactivation application to the incumbent and not to the pre-selected provider. The incumbent would reject any application to reactivate an old subscription submitted earlier than two months before the deactivation date. This measure is seen by EETT as discouraging early win-back. Alternative fixed operators were unhappy that the new system gave the incumbent the possibility to follow win-back practices after two months and considered that there was inappropriate exchange of information between the incumbent's C(P)S and marketing departments. An investigation carried out by EETT was not finalised at the time of drafting this report.

## **Broadcasting**

### *Market situation*

At the end of the third quarter of 2005, 94.3% of all households (around 4 million households) had analogue TV as the main means of reception of TV services, while a small percentage (5.7%) had digital satellite TV.<sup>65</sup> No cable TV is offered in Greece. Digital switchover is expected to take place after 2010.

### *Regulatory issues*

As indicated above, the Greek authorities have not yet notified the broadcasting transmission services market (market 18). The new law gives no relevant powers to the Greek NRA. Discussions are being held in Greece about which authority will define and analyse this market (the NRA or the Ministry of Press and Mass Media). The Greek authorities announced that the regulatory framework would be transposed in a new media law as regards broadcasting services. The Commission is looking into the matter.

## **Horizontal regulation**

### *Spectrum management*

In March 2006 the Greek authorities adopted the new national regulation for the allocation of frequency zones. A preliminary assessment suggests that Greece is now in compliance with the Commission Decisions on radio spectrum harmonisation.

### *Administrative charges*

Administrative charges imposed by EETT produced a surplus in EETT's accounts.

### *Rights of way and facility sharing*

The newly adopted law includes provisions for improving the rights of way system in Greece, where any authorisation to install base stations or masts for mobile or fixed wireless communications has been completely blocked since March 2005. The law paves the way for secondary legislation in the form of a Ministerial Decision to define a uniform procedure to be applied by all local authorities involved and a Regulation to set the fees to be paid. Both legislative acts were still pending when this report was being drafted although they should have been adopted the latest six months after the entry into force of the new law.

All operators have stressed that there has been no improvement with regard to the various issues with granting rights of way identified in last year's implementation report. Moreover, mobile operators have claimed that an increasing number of licensed antennae are being deactivated by local authorities on the grounds of unspecified health and environmental concerns.

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<sup>65</sup> Source: Dataxis: "Digital television data, EU market for digital television"; report prepared for the European Commission, 2006.



EETT has been collecting input from all parties involved in order to submit proposals for a Ministerial Decision to the Ministry of Transport and Communications. The Commission services are looking into the rights of way issue.

#### *Authorisations*

EETT adopted a regulation on general authorisations in June 2006.

#### *Network roll-out*

Major developments on network roll-out in the Greek electronic communications sector seemed to be under way at the time of writing. In November 2006 an alternative fixed operator signed a commercial agreement with a provider of wireless communication services and networks that allows the operator to use the provider's extensive WiMAX network. Another alternative operator has announced plans to launch ADSL services reaching up to 4 Mbps based on LLU. One of the main ISPs has announced that rapid progress is being made with construction and roll-out of its own fibre-optic network and that it is aiming at covering 160 km by 2007. Services on this network were scheduled to begin in December 2006. A mobile operator has announced plans to invest in developing WiMAX networks, while another operator has expressed interest in entering the fixed market.

The Greek government's Broadband Access Development in Underserved Territories project aiming at co-financing broadband investment for local access across Greece (excluding Athens and Thessaloniki) is currently underway. Interested operators had submitted their proposals at the time of writing. This broadband access development project will be co-financed by EU Structural Funds and the new broadband infrastructure will be built on an "open access" model. The project is expected to be completed by the end of 2008 with geographical coverage reaching 60% (against 13% in 2006) and population coverage 90% (against 60% in 2006).

## **THE CONSUMER INTEREST**

### **Universal service**

Following adoption of the new law, the incumbent remains the Universal Service ("US") provider for a transitional period until the new designation is made. EETT has carried out national consultations on various aspects of universal service provision. EETT's proposals are to be submitted to the Ministry of Transport and Communication and to the Ministry of National Economy for a Ministerial Decision.

### **Directory services and directory enquiry services**

In May 2006 the "US" provider completed printing and publication of the first issue of the USO printed telephone directory which includes both fixed and mobile numbers and covers all of Greece. All post-paid and pre-paid customers are included in the directory except those who have opted out. The Commission has therefore closed the infringement proceedings concerning the lack of a comprehensive US directory.

Regarding national directory enquiry services, agreement was reached between two of the mobile operators and the incumbent on a dispute relating to access by operators to the universal database, the relevant costs for providing their subscriber data for the comprehensive directory and the technical specifications for subscriber data.

### **Emergency services (112)**

Although the single European number (112) is operational in Greece, no caller location is yet available to emergency services, neither from fixed nor from mobile phones. For this reason, the Commission opened infringement proceedings against Greece in April. The Greek authorities replied to the letter of formal notice in December 2006. The Commission is looking into the matter.

### **Number portability**

There has been a considerable increase in ported numbers since the introduction of number portability in Greece for both fixed and mobile numbers. In October 2006 the number of fixed ported numbers (including non-geographic numbers) stood at 60 948 compared with 24 307 a year earlier. Mobile ported numbers increased by 68% during the year to 141 154.

### **Must-carry**

Despite the new law introducing must-carry obligations for the transmission of specified radio and television broadcast channels and services, there is still no secondary legislation in place to impose these obligations.

### **Data protection**

On 5 July 2006 the Greek authorities notified to the Commission Law 3471/2006 on the protection of personal data and of privacy in the electronic communications sector, which transposes Directive 2002/58/EC.

# SPAIN

## INTRODUCTION

The Spanish electronic communications market is growing fast and the broadband market remains dynamic. Regulatory mechanisms have already made a significant impact on competition on the market, such as growing unbundling of the incumbent's local network or intensive use of number portability. There are also signs of increasing competition on the mobile market, with new players entering the market and new tariff schemes increasing the variety of offers for consumers. Overall, consumers have benefited from falling prices since liberalisation of the electronic communications market, and some recent measures might improve protection of users' rights and quality of service information.

Moreover, in 2006 Spain completed the initial market review required by the EU framework. As a result, regulatory obligations have been updated to current market conditions, although the full impact of implementation thereof on the market has yet to be seen. Following adoption of the remaining secondary legislation in 2005 and completion of the first market review in 2006, the main challenge ahead is effective implementation of the regulatory framework. The overall financial burden and the difficulties with roll-out of networks are considered critical barriers by operators.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Although the first market analyses were not notified to the Commission until September 2005, the Telecommunications Market Commission (CMT) completed the review of the level of competition on the relevant markets in about one year. The level of regulation on the mobile market increased, while regulation on the retail calls markets was lifted. Over the last year the CMT has been especially active on the broadband market by resolving access disputes and launching investigations for possible breaches of local loop unbundling (LLU) obligations. Timely CMT resolutions are essential for effective implementation of those remedies.

### Organisation of the NRA

The division of regulatory functions between different national regulatory authorities (NRAs) persists, even if the main responsibilities are divided between only two of them (the CMT and the Ministry of Industry, Tourism and Commerce). Establishment of the Radio Communications State Agency, the NRA intended to manage radio frequencies, has been postponed until the spectrum trading policy is defined.

As mentioned in the previous report, the CMT appealed to the Supreme Court to repeal a number of articles in a Regulation adopted in December 2004, on the grounds that it transfers some of the numbering powers which it previously held to the Ministry. The CMT also appealed against the Regulation of 28 July 2006, which liberalises cable broadcasting services, for reasons connected with audiovisual powers. Both appeals are still pending.

Following the CMT's move to Barcelona at the end of 2005, there was a substantial turnover of personnel, together with changes of half of the members of the Board. The CMT started to publish quarterly reports at the beginning of 2005 and is expected to publish a monthly telecommunications price index starting in 2007. The regulator also improved the updates to its latest decisions on its website.

### **Decision-making**

The most significant development was completion of the initial market review required by the EU framework. The CMT was slow to start its market analyses but the process was completed efficiently in about one year. The regulator notified of all the recommended markets, including the wholesale international roaming market and the final measures on each notified market. The impact of the revised regulatory scenario on the market remains to be seen, as some measures have been adopted only recently or are still about to be adopted.

The CMT launched the national consultation in parallel to the consultation of the Commission on the first three markets and on the last market notified. In general, the national consultation by the CMT has been welcomed by interested parties. However, more transparency about price obligations is requested by the sector, while respecting confidentiality, as in some cases price obligations are decided directly in the final decision. More detailed consultation on prices is perceived in the decisions concerning the mobile sector.

To a large extent, the CMT maintained existing regulatory remedies, while extending their scope to mobile access, to further products for wholesale broadband access (IP bitstream), to additional interfaces for leased lines or to broadcasting transmission services. On the other hand, the CMT withdrew price obligations for fixed retail calls markets, abolishing the previous price cap system while maintaining transparency obligations. On other markets the decisions by the regulator led to greater regulatory certainty, such as establishment of a glide path for mobile termination rates (MTRs) replacing the previous yearly tariff update.

Following investigation, in November 2006 the CMT finally established that the incumbent voluntarily obstructed the provision of LLU services by alternative operators in a continuous and generalised manner and imposed an exemplary penalty on the incumbent. The regulator has also performed intensive monitoring, focusing on the replicability of the incumbent's retail offers and resolving some of the numerous disputes submitted by alternative operators regarding failure to fulfil unbundling obligations. However, there is room for improvement in the form of more timely decisions by the CMT in order not to adversely affect operation of this rapidly changing sector.

### **MARKET AND REGULATORY DEVELOPMENTS**

The total income of the electronic communications sector in Spain grew by 9.9%.<sup>66</sup> Investment totalled €5 581 million in 2005, which is an increase of 19.6% over the previous year and equals the 2002 investment level. The majority of the investment was driven by the roll-out of fixed broadband and UMTS networks with 53.9% for fixed voice and broadband, 37.1% for mobile and 9% for audiovisual. The revenue of the telecommunications sector accounts for 3.6% of GDP, a slight increase in its input to the Spanish economy, one of the most dynamic in the Euro zone.

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<sup>66</sup> CMT's Annual Report 2005.

Operators complained about the excessive overall financial burden imposed on the sector which, according to a study,<sup>67</sup> in the case of mobile telephony grew from €65 million in 2000 to €311 million in 2005 (€332 million estimated for 2006) and accounts for an average of 1.86% of the mobile operators' gross revenue, excluding corporation tax (approximately 35%), which is higher than for other sectors.

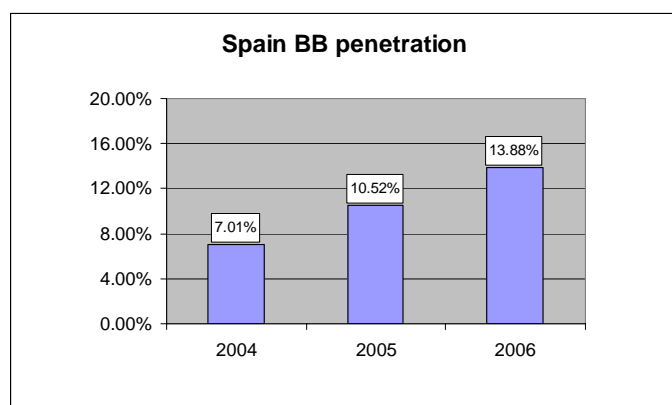
A series of mergers and acquisitions created a scenario with stronger players, such as one main consolidated cable operator and a new integrated operator following the acquisition of the third mobile company. Meanwhile, the incumbent has entered new markets through acquisitions of operators and new mobile licences in other European countries and investments outside Europe.

Very significant price cuts have been reported for both fixed communications (62.6% since 2000) and mobile (77.1% since 2000)<sup>68</sup> to the benefit of consumers. There is a clear trend on the electronic communications market towards bundled products with cable and some ADSL operators already offering triple play packages. By the end of 2005 a total of 3.6 million customers were already benefiting from a bundled offer.<sup>68</sup> Moreover, access to content is assuming growing importance for the provision of electronic communications services.

Following the public consultation which took place in 2005, VoIP commercial offers were launched during 2006, although without a major impact for the moment. On the one hand, market interest in VoIP services is low in comparison with traditional voice services. On the other, issues such as interconnection and number portability still need to be improved for effective implementation of nomadic services.

## Broadband

### Market situation



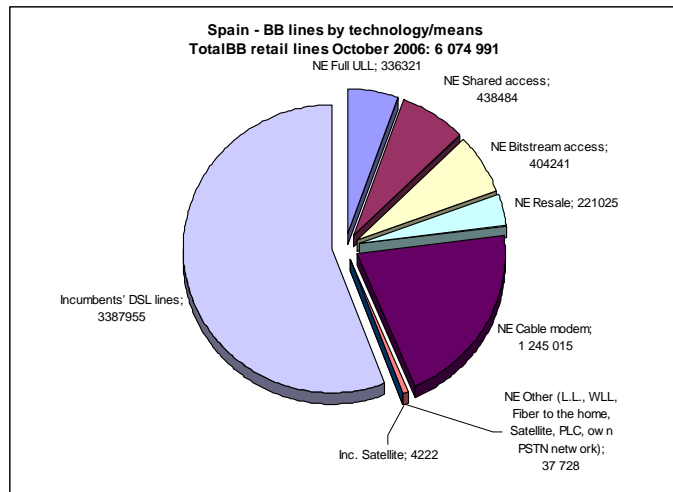
The broadband market remained dynamic over 2006. According to data from 1 October 2006, broadband penetration increased from 10.52% one year earlier to 13.88%, but is still below the EU average (15.69%). The number of broadband lines in Spain exceeded 6 million by October 2006, with ADSL the main technology used. Since mid-2005 the incumbent has gained market share in terms of lines

(from 51.5% in July 2005 to 55.8% in October 2006). The incumbent launched in 2005 its first double play (voice and internet) and triple play (voice, internet and TVoDSL) offers, previously provided only by cable operators. Some alternative operators followed by launching triple play offers and high data rate internet access based on LLU in 2006.

<sup>67</sup> Study on the telephony sector's financial burden in Spain in comparison with other economic sectors and other EU countries. Deloitte, October 2006.

<sup>68</sup> CMT's Annual Report 2005.

While the incumbent increased its market share to 55.8%, alternative ADSL operators hold 23.0% and cable operators 20.5%. However, cable operators seem to be having difficulties in maintaining their market share, and the number of ADSL lines offered by alternative operators overtook the number of cable lines in the course of 2006. Alternative operators have made significant investments in broadband infrastructure (mainly LLU and cable) to gain direct access to customers. As a result, the number of unbundled lines more than doubled in the past year, with new entrants still showing a preference for shared access. According to October 2006 data, the number of unbundled lines has also overtaken bitstream access to become the main means of access, after cable, for alternative operators. Despite the recent development of LLU, in a resolution adopted in November 2006 the CMT considered that the retail broadband prices in Spain are particularly higher than the EU average, which might explain a lower level of broadband penetration.



The 1999-2000 tender procedure for frequencies in the 3.5GHz band for the provision of wireless local loop (LMDS) assigned no frequencies to the incumbent as it was intended to increase competition for access services. However, in July 2006 the incumbent took control of one of the three remaining holders of those licences, after approval by the national competition authority which had previously blocked the operation in January 2006.

### *Regulatory issues*

Following the analysis of the bitstream market by the CMT, the incumbent presented a draft reference offer (known as OIBA), including regulated IP bitstream wholesale access. As some speeds are offered only within the IP bitstream, alternative operators which already invested in ATM bitstream are forced to migrate to IP bitstream. In an effort to improve price control obligations, the CMT has changed the cost model for the bitstream products from a retail-minus to a cost-plus model based on cost accounting data. Meanwhile, the regulator commissioned a study in order to establish a definitive cost-oriented model for bitstream access.

The incumbent was authorised to launch a TVoDSL service in 2005 and a high-speed ADSL2+ broadband offer in February 2006, without an equivalent bitstream product in the reference unbundling offer (RUO), which would have guaranteed replicability in the whole territory. Following the CMT's decision in July 2006, the revised obligations imposed on the incumbent in the context of the market review establish that bitstream products shall ensure the technical replicability of all retail broadband offers (including VoIP and TVoDSL) and not only retail broadband internet access services. The implementation of these obligations in practice is still to be verified.

In this respect, the CMT blocked some of the incumbent's offers which were not replicable by alternative operators and in some cases requested the corresponding changes to the RUO. On the other hand, the incumbent complained about the delays in introducing new retail

broadband offers on the market as any change requested to the RUO can take up to seven months due to the necessary administrative procedures.

The upward trend in the number of unbundled lines seems to suggest some improvement in the unbundling process. However, alternative operators still complained strongly to the regulator about the incumbent's reluctance to comply with LLU obligations. A special monitoring unit has been established within the CMT in an effort to streamline procedures. The RUO was revised in September 2006, reducing the monthly fee for fully unbundled lines from €11.35 to €9.72, which is now in line with the EU average. The new RUO also introduced some changes, such as LLU demand estimates by alternative operators and provision by the incumbent of information about certain quality parameters and about services which it provides to its own subsidiary to check that new entrants are not discriminated against compared with the incumbent's own services.

The regulator opened several enforcement proceedings concerning non-fulfilment of the obligations established in the RUO by the incumbent. Although the first decision came a year and a half after the investigation was opened, in November 2006 the CMT finally imposed a very hefty fine (€20 million) on the incumbent for hindering unbundling of local loops by alternative operators. Beyond that, the CMT has resolved a number of access disputes and imposed fines on the incumbent when it was found to be failing to comply with RUO obligations.

## **Mobile markets**

### *Market situation*

The Spanish mobile market is continuing to grow in terms of both traffic and revenue, despite high mobile penetration (104% in October 2006), which is still above the EU average (103%). Mobile traffic already accounts for 43% of all voice traffic.<sup>69</sup> As far as market shares are concerned, the pattern of the previous year more or less continued. By October 2006 the market share in terms of subscribers taken by the incumbent's subsidiary had slipped back to 46%, the second operator's share had increased to 29.8% and the third operator's had remained stable (23.9%).

There are signs of increasing competition on the mobile market with significant price decreases. Operators continued to compete using mobile number portability, on-net call discounts and mobile subsidies and launched a variety of innovative tariffs, such as flat rates, in order to retain customers and win new ones. Since the introduction of commercial UMTS services in 2004, business users have been the main target. However, the total number of users of UMTS services is still low.

The situation on the Spanish mobile market is expected to change shortly following the recent entry of the first mobile virtual network operators (MVNOs) and the fourth UMTS licence-holder. In particular, following the acquisition of a majority of shares by a Nordic operator, the fourth UMTS licence-holder launched commercial services in early December 2006. However, the effects on the market remain to be seen, especially as regards the type of MVNO which will enter the market.

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<sup>69</sup> CMT's Annual Report 2005.

### *Regulatory issues*

One of the first markets reviewed by the CMT was market 15 in the Recommendation (mobile access market), where the NRA imposed on the three mobile network operators (MNOs), amongst others, the obligation to provide access, on reasonable requests by third parties, at reasonable prices. This decision was not objected to by the Commission, which instead sent a comments letter to the Spanish regulator. Up to now a number of agreements on the market have not required the regulator's intervention. However, the regulator's measure was heavily criticised by all mobile operators, which appealed against it to the national courts. Nevertheless, appeals do not have automatic suspensory effect in Spain.<sup>70</sup>

During the last four years the CMT has been revising MTRs on a yearly basis. However, after the review of market 16 in the Recommendation (mobile call termination) found significant market power (SMP) on the part of the three MNOs, an asymmetrical glide path was established in order gradually to lower prices to cost-oriented levels (a converged price of 7 cent per minute from April 2009 on).

### **Fixed**

#### *Market situation*

Competition has increased on this rather mature market, where fixed voice is increasingly offered as an additional service to broadband and/or TV services. Alternative operators attracted customers from the incumbent and new customers, based on unbundling copper lines and cable. By September 2006 the percentage of subscribers using a provider other than the incumbent for direct access had risen further to 13.9% compared with 12.3% the previous year. The incumbent's share of the fixed voice telephony retail market remained stable in terms of revenue (69.99% in December 2005).

#### *Regulatory issues*

The CMT was the first regulator to introduce capacity-based interconnection in 2001, which allowed alternative operators to present attractive offers, including bundled products. By the end of 2005 more than half of fixed interconnection was capacity-based<sup>71</sup>. Other countries are currently examining introduction of this measure. Following the analysis of the call termination market, amongst other things the CMT imposed an obligation to offer cost-oriented prices on the incumbent, but just an obligation to offer reasonable prices on alternative network operators.

Following the Commission's observations on the scope of the remedies, in November 2006 the CMT became one of the first NRAs to impose access and transparency obligations not only for traditional interfaces but also for Ethernet and Fast Ethernet interfaces on the wholesale terminating leased lines market. However, interconnection and leased line prices in the reference interconnection offer (RIO) were not modified during 2006. The latest update of the RIO in November 2005 decreased leased line prices, although they are still above the recommended EU ceiling.

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<sup>70</sup> One mobile operator also introduced an action before the European Court of First Instance seeking annulment of the Commission's decision contained in its comments letter of 30 January 2006. (Case T-109/06).

<sup>71</sup> CMT's Annual Report 2005.



Over the last year the number of pre-selected lines decreased by 14.5% to 2 million by October 2006. This reduction corresponds to the increase in the number of unbundled lines, which are currently the option preferred by alternative operators. The regulator is studying the impact of the introduction of wholesale line rental (WLR). The incumbent operator is interested in providing offers combining fixed access and telephone services, though replicability should be ensured first.

## **Broadcasting**

### *Market situation*

Different platforms are providing broadcasting transmission services<sup>72</sup> in Spain: cable (8.2%), satellite (17.2%) and analogue terrestrial television (74.0%), plus the DSL-based operations launched in 2005 and 2006. Spain has one of the highest terrestrial television market shares in the EU. Several broadcasters are already simultaneously using analogue and digital technologies, which use different transmission service operators at local and regional level, but a single operator at national level.

In 2005 the government moved the deadline for regional and national switch-off to 2010, while the local switch-off deadline is 2008. Following the switch-off, a large part of the digital dividend is still likely to be used for broadcasting terrestrial services, as Spain has a complex broadcasting sector with national, regional and local levels.

Amongst the measures taken in July 2005, depending on spectrum availability the government provided for allocation of a single multiplex for mobile broadcasting services for the transitional period. However, no tender for the assignment of frequencies has been announced yet. The first mobile TV trials (DVB-H) have proved successful and that there is potential demand.

Most operators providing analogue broadcasting transmission services for local TV were not allocated frequencies for this service, which created a legal vacuum. The Commission's services are currently examining effective management of radio frequencies for local analogue TV.

### *Regulatory issues*

The CMT was one of the first NRAs to impose an obligation to provide access to the terrestrial broadcasting transmission network of the SMP operator at cost-oriented prices, although no operator has made use of it to date. In 2006 the SMP operator signed long-term contracts with all seven national digital terrestrial television (DTT) broadcasters, and it will progressively upgrade its network to meet the digital coverage conditions.

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<sup>72</sup> Household penetration in the third quarter of 2005. Daxis 2006: "Digital television data: EU market for digital television".

## Horizontal regulation

### *Spectrum management*

Although the Spanish legislation generally allows transfers of rights to use spectrum, the Ministry has not yet adopted a Regulation on radio spectrum management specifying the conditions for spectrum trading, waiting for an EU approach to spectrum management. The fee for use of spectrum will be increased this year by the consumer price index only, contrary to previous years. Operators complained about the excessively slow procedures regarding spectrum, although the Ministry argues that delays have been reduced over the last year.

Spain has taken measures to implement three of the four Commission Decisions<sup>73</sup> adopted under the Radio Spectrum Decision to harmonise spectrum use in specific bands and has updated the national frequency allocation plan accordingly. Decision 2005/928/EC will be included in the next review to be published early in 2007.

### *Administrative charges*

As in previous years, the CMT's operating costs were lower than the amount collected through the administrative tax which, as provided for by the Authorisation Directive, is intended to cover only administrative costs, although the difference narrowed considerably in 2005. In December 2005 the administrative charge was adjusted from 0.15% to 0.125% of the operator's gross revenue.<sup>74</sup> However, no further reduction is expected this year.

In late December 2005 a Regulation on Telecommunication Taxes<sup>75</sup> was adopted, which sets the deadline and conditions for the transfer of any surpluses from the CMT to the yet to be established Radio Communication State Agency, which was already provided for under the General Telecommunications Law. The Commission services are looking further into this issue.

### *Rights of way and facility sharing*

As reported last year, the roll-out of network infrastructure urgently needs to be facilitated, as operators are still encountering serious difficulties in obtaining rights of way due to the numerous regulations, coupled with delays or even continuous denials from some local and regional administrations. Although some progress was made on certain procedural guidelines between administrations and operators in previous years and the number of mobile base stations increased by 30% during the last year, this has produced no significant overall improvements in network roll-out.

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<sup>73</sup> Commission Decisions 2005/513/EC of 11 July 2005, 2005/50/EC of 17 January 2005 and 2004/545/EC of 26 July 2004.

<sup>74</sup> Law 30/2005 of 29 December 2005 on the general national budget for 2006.

<sup>75</sup> Royal Decree 1620/2005 of 30 December 2005 laying down the taxes established in General Law 32/2003 of 3 November 2003 on telecommunications.

The Ministry's website provides an on-line service enabling citizens to check the certified electromagnetic emission values for mobile installations, which are significantly lower than the mandatory limits. Such action has been considered necessary in view of public concern about antennae. Coordination of local and regional administrations would also be helpful, as the deployment of networks is a very important issue especially for wireless installations in relation to the development of UMTS services, the entry of the fourth mobile operator and fulfilment of the quality criteria demanded of operators. Moreover, a number of municipalities started imposing a public domain occupation tax equivalent to 1.5% of their gross income on mobile operators, which were previously excluded in 2003. Mobile operators refused to pay the tax and are currently discussing this issue with the Ministry.

## **THE CONSUMER INTEREST**

### **Tariff transparency**

Consumers have benefited from the growing diversity of offers. In a move away from the existing time and volume tariffs, flat rates for voice and data services were introduced during the last year. In October 2006 the incumbent launched the first mobile tariff including a monthly fee, in return for which customers benefit from free incoming calls while roaming.

### **Universal service**

Following the public consultation and call for expressions of interest launched by the Ministry, the incumbent operator was to be directly designated as universal service provider before the end of 2006 since it was the only operator to express interest in accordance with the criteria laid down. The two bundles of universal service elements as laid down in the public consultation might have limited the number of potential operators interested in providing this service.

In March 2004 the CMT took its last decision on the net cost for provision of the universal service, establishing that the unfair burden condition had not yet been fulfilled. Therefore the universal service fund shared among operators has not yet been activated. After the universal service provider appealed against this decision, in April 2006 the Court requested the regulator to evaluate the impact that mobile and cable communications might have had on the net cost. At the same time, the CMT will shortly approve the net costs estimates for 2003 and 2004 along with a new methodology for calculating net costs, including the concepts of unfair burden and market benefits, the fruit of an external study.

According to the Spanish authorities, if an operator is designated as a universal service provider by a tendering procedure the net cost of provision of the service will always be considered an unfair burden and therefore eligible for compensation, ending the discretion of the CMT. The Commission services will monitor this issue.

### **Directory services and directory enquiry services**

The Spanish authorities are examining the possibility of removing directory enquiry services from the universal service. Up to now, in order to ensure the affordability of these services, designated operators have had to communicate prices to the regulator.

## **Emergency services (112)**

In Spain caller location information is provided using the push technique in the entire country. However, operators claim that the costs should be borne by the emergency services and not by the operators as has been the case so far.

## **Number portability**

Number portability has been widely used to attract customers, who are able to change provider to match their needs. The October 2006 data show that Spain has the second highest number of fixed (2 290 400) and the highest number of mobile (9 400 000) ported numbers in the EU, with an average of 44 000 fixed and 253 000 mobile numbers ported per month during the last year. The CMT has shared its experience on number portability with regulators from non-EU countries. Moreover, the CMT launched a public consultation in October 2006 on the progressive shift from a decentralised to a centralised procedure for mobile number portability, in view of certain inefficiencies in the current system and of the entry of new players on the mobile market, which will increase consumer choice.

## **Must-carry**

A Regulation adopted in July 2006<sup>76</sup> maintains must-carry obligations only for certain analogue channels and for a specified period of time, i.e. until the switch-over in 2010. However, general interest objectives do not appear to be clearly defined. Up to now, must-carry obligations have been imposed only on cable operators in their capacity as broadcasters and at their own request. The latest draft Audiovisual Law contemplates the introduction of new must-carry obligations on broadcasting service providers.

## **Consumer complaints and out-of-court dispute resolution**

The right to automatic compensation for any interruption of service, which previously applied only to telephone users, was extended to internet users in June 2006. In March 2006 a Quality Order was adopted laying down a comprehensive list of quality indicators for fixed, mobile and internet access services and for provision of the universal service.

The office established within the Ministry in April 2005 to deal with users' complaints and to provide information on users' rights received an average of 200 queries and 47 complaints a day. The majority of the complaints (18%) concerned subscriptions and cancellations for internet services, while 5.9% were about installation of a telephone connection, which should be ensured by the universal service provider.

## **Premium-rate service and activation of non-requested services**

In February 2006 the Ministry announced that new regulatory measures will be established in order to protect users' rights, in particular concerning premium-rate services and in the light of the growing number of complaints from users about, amongst other things, activation of non-requested broadband services and customer care.

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<sup>76</sup> Royal Decree 920/2006 of 28 July 2006 approving the general regulations on provision of radio and television broadcasting services by cable.

# FRANCE

## INTRODUCTION

France remains a dynamic and competitive broadband market, with high penetration rates and attractive prices. At the same time, several municipalities are actively involved in deployment of fibre at local or regional level, and several regions have been granted WLL authorisations. Regarding mobile markets, the interest declared by some market players in a fourth 3G authorisation could enhance competition. Importantly, the French market seems fully to embrace convergence through triple or even quadruple play offers.

Against this background, the French NRA (ARCEP) has generally submitted detailed market analyses and is actively trying to resolve market problems emerging (see, for example, the review of the market for wholesale SMS termination). It has also lifted remedies in line with competitive developments. Moreover, in the case of specific issues, such as consumer protection, mobile television or the switchover to digital broadcasting, the French government has taken legislative initiatives.

## REGULATORY ENVIRONMENT

### Main regulatory developments

2005 had been spent mainly on the final stages of transposition and on the bulk of the market analyses identified in the Recommendation on relevant markets. In 2006 secondary trading of frequency bands was put in place. The French regulator was able to adjust or even remove some remedies on various retail markets. On the legislative side, draft laws were tabled on consumer protection (including universal service) and broadcasting, notably in view of the switchover to digital broadcasting.

### Organisation of the NRA

ARCEP is actively working to improve competition and benefits to users and is generally well perceived by industry and consumers.

Cooperation with the competition authority (Conseil de la Concurrence) seems effective. There appears to be good cooperation with the Frequency Agency (Agence Nationale des Fréquences) which coordinates use of spectrum.

ARCEP deals with the transmission market, while the broadcasting authority (Conseil Supérieur de l'Audiovisuel or CSA) deals with the (television and radio) broadcasting and content market and manages spectrum allocated to broadcasting. Daily cooperation between the two bodies seems to pose no problem and is facilitated by a liaison group made up of representatives from both regulators (the Groupe de Liaison ARCEP-CSA or GLAC), which meets on dossiers of common interest, such as mobile TV, IPTV, the yet to be completed analysis of the market for broadcasting transmission services or the merger between the two main satellite television operators. A recent report commissioned by the Minister for the Economy, Finance and Industry cautiously recommends bringing ARCEP and CSA closer together to reflect convergence.

Cooperation with the various consumer protection bodies seems constructive. However, the large number of public and private bodies involved more or less voluntarily does not seem conducive to transparency or efficiency.

### **Decision-making**

ARCEP has been relatively efficient at conducting market analyses and taking the appropriate regulatory measures. For instance, the remedies imposed at wholesale level allowed ARCEP to lift regulation of the retail calls markets sooner than expected.

Although it took some time before the new regulatory framework was fully transposed in France, ARCEP has submitted detailed market analyses and is actively trying to resolve the problems arising on the market. ARCEP has normally followed the comments made by the Commission in the Article 7 procedure.

ARCEP has submitted notification of all markets, with the exception of wholesale international roaming (market 17) and wholesale access and call origination on mobile networks (market 15), for which the notification was withdrawn in 2005. An analysis of parts of the market for transmission services provided to broadcasters is still awaited despite the Commission's comments.

In general, ARCEP extended and enhanced the existing regulation where justified, while recently starting deregulation of the retail narrowband calls markets. However, certain *ex-ante* provisions have been maintained on the basis of the Universal Service Directive. The regulation of narrowband access markets has been maintained (CS/CPS) and strengthened (wholesale line rental).

For several of ARCEP's decisions (e.g. on fixed telephony, leased lines, LLU and bitstream) one key issue seems to be to ensure effective implementation of the cost-accounting and accounting-separation obligations imposed on the incumbent. Implementation of ARCEP's decision on cost accounting and accounting separation, adopted in December 2006, is expected to provide a general overview of the incumbent's costs in view of *ex post* controls, not least in areas where *ex ante* remedies have been lifted. Accounting-separation provisions are aimed at preventing discriminatory practices in favour of the incumbent's own activities or unfair cross-subsidies.

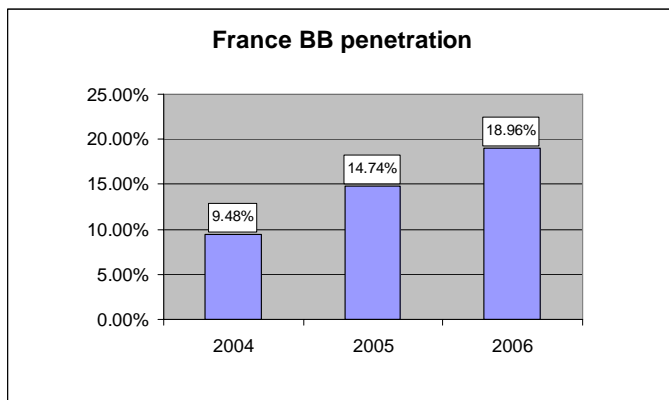
### **MARKET AND REGULATORY DEVELOPMENTS**

According to ARCEP, the resurgence of investment and growth was "clearly evident" from the 2005 figures (15% up on 2004), based on increasing consumption. While this figure is contested by operators, it is true that substantial investments have been announced by operators this year, not least in fibre. In September 2006 the first alternative broadband operator announced a €1 billion investment (over seven years) to deploy a fibre-to-the-home (FTTH) network, starting with Paris during the first half of 2007. A key DTTV operator announced a €1 billion investment over five years, *inter alia* for deployment of WiMAX broadband. WLL authorisations were granted to a number of operators (using WiMAX technology) in July 2006, partly to cover citizens who do not yet have access to DSL by the end of 2007. Mobile television trials (DVB-H) run by various industrial players in the Paris area in 2005-2006 confirmed the interest in such services. Authorisations have been granted by the CSA for further trials in 2006-2007.

France seems to be firmly engaged in converging services. Mainly thanks to unbundling, triple play offers including telephony, internet access and television and quadruple play offers (adding mobile) continued to develop in 2006, gradually leaving behind CS/CPS models. At the same time, fixed-mobile substitution apparently did not develop as it had in 2005.

## Broadband

### Market situation

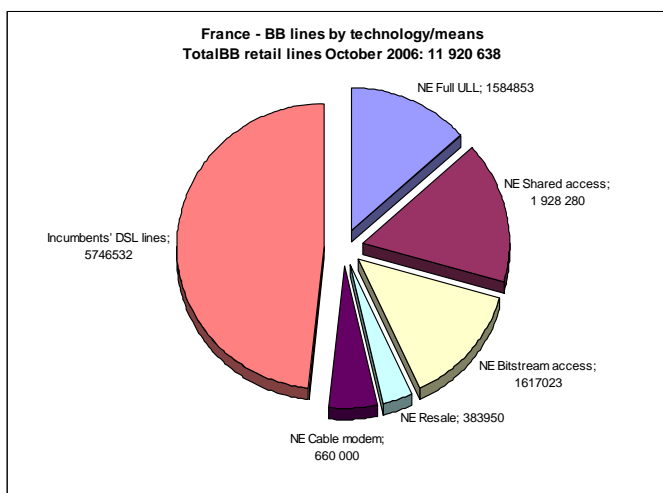


The broadband market has again been very successful and is continuing its strong progress, with a penetration rate of 18.96% in October 2006. France was the EU country with the third highest number of broadband lines, 11.9 million (October 2006), of which 94.5% are DSL lines.

This growth builds on the development of fully unbundled lines, which had

risen to 1.58 million by October 2006 (compared with 0.6 million at the end of 2005). France is now second in Europe in terms of number of unbundled lines, with 3.51 million in October 2006.

The incumbent's share of the broadband market increased slightly in 2006 to 48.2% of the total retail market (compared with 45% in October 2005) and 51% of the DSL market in October 2006, which shows the continued importance of the incumbent's resale and wholesale broadband (bitstream) products. As in 2005, a large number of new sites opened to unbundling are linked to public initiatives.



### Regulatory issues (including market analyses and remedies)

The market analysis decisions on broadband have generally contributed to improving competition on this market. For example, ARCEP identified a relevant market for wholesale national broadband access in 2005 and imposed specific remedies to regulate this market for one year in order to allow checks on internal provision of wholesale services to the retail service arm of the incumbent operator. These soft measures on the broadband national market seem to have smoothed the transition to more infrastructure-focused regulation of broadband access. These light measures expired in September 2006 and will not be renewed according to a draft decision notified to the Commission by ARCEP in December 2006.

## Mobile markets

### *Market situation*

The 2G authorisations of the two bigger mobile operators were renewed in 2006. (The third licence will expire in 2009 and a public consultation was launched in autumn 2006 to decide the conditions for renewal.) The mobile market in France recorded an annual growth rate of 9.4%, with 48 million subscribers on 1 October 2006 (including MVNOs). This is an increase of 4.1 million over the previous year. Nevertheless, the mobile penetration rate in France on 1 October 2006 stood at 82% (82.6% if the overseas territories are included), which is still well below the EU-25 average (of 104% for 2G and 3G).

Prices have remained stable for the last few years and the three operators' market shares have decreased very slightly. Two of them hold 82.5% of the market: the incumbent's mobile subsidiary 45.9% and the second mobile operator 36.6% (according to Mobile Communications Europe, 7 November 2006). The third player's market share has remained stable at 17.5%. Consumer associations consider that mobile prices have not decreased sufficiently compared with other EU countries. Information collected on tariffs for mobile baskets confirms the relatively high prices charged in France.

Against this background, access to this market by new entrants through mobile virtual network operators (MVNO) agreements could be crucial and indeed increased in the course of 2006. Twelve MVNOs were on the market in September 2006. While a growing number of subscribers are joining MVNOs (11.6% of new post-paid subscribers and 6.8% of pre-paid in the third quarter of 2006), market shares remain low at around 1.99%. While the number of MVNO subscribers grew to 954 000 in September 2006, from 108 000 in September 2005, it remains to be seen whether MVNOs will become effective competitors on the market.

### *Regulatory issues (including market analyses and remedies)*

ARCEP has approved asymmetric mobile termination rates in that the third, smaller, operator is authorised to charge higher mobile termination rates than the two bigger operators (including for SMS termination). Under the ARCEP decision proposed in September 2006, the average call termination price would fall further in 2007, by about 21% for the two major operators and by about 18% for the third, following the trend established in 2005 and 2006. The proposed decreases are in line with ARCEP's announcement, in late 2004, of a 50% decrease over three years.

ARCEP had decided to renotify, by the end of 2006, its draft decision on the analysis of the market for wholesale access and call origination on mobile networks (market 15) which had been postponed in 2005 in order to monitor the mobile market and establish the impact of the MVNO agreements on competition. However, in November 2006 ARCEP decided once again to postpone its analysis after various parties declared interest in the fourth 3G licence in the course of a public consultation on the subject. If this interest is confirmed and a fourth authorisation is awarded, competition could further intensify in France in the years ahead.

ARCEP was also the first NRA to identify a sub-market for SMS messaging within the market for wholesale termination on individual mobile networks (market 16). ARCEP concluded that each mobile operator in France holds a monopoly over accepting SMS messages from other networks and decided to impose price caps per SMS.



## **Fixed**

### *Market situation*

The fixed markets are developing in France, mainly due to the growth of broadband. In October 2006 the penetration rate was 83% for fixed lines compared with 82% the previous year. The consolidation of operators might have had an impact on the wholesale market. France also reported a further slight decrease in the number of PSTN lines: there were 32.4 million PSTN lines in France in October 2006.

The incumbent is still dominant on the fixed voice market, with a 70.5% market share (by revenue) on 1 January 2006, slightly down on 2005 (71.5% on 1 January 2005). The incumbent is owned directly or indirectly by the French state with a holding of about 33.10%. Other shares belong to employees (3.1%) and stock market investors (61%), in some of which the state also has shareholdings.

Most alternative operators use carrier pre-selection for providing their voice services (64% of active operators, whereas 35.71% use carrier selection). The extension of VoIP, accounting for about 17% of voice traffic in the second half of 2006, is, however, bringing changes to this market.

Triple play offers, including telephony, internet access and television, and quadruple play offers (adding mobile) continued to develop in France in 2006. This seems to be due to unbundling in general. Meanwhile the wholesale line rental (VGAST) product offered by the incumbent has not yet been taken up (except in the overseas territories). While alternative operators complained that the WLR offer imposed was not yet fully operational and did not leave enough space to develop their retail offer, commercial offers were expected to be launched in early 2007 according to the NRA.

### *Regulatory issues (including market analyses and remedies)*

In a 2005 decision on fixed telephony markets, ARCEP generally imposed on the incumbent various non-discrimination and other obligations in relation to six retail (residential and business) fixed markets until 2008. In line with comments made by the Commission, ARCEP decided to remove some of these obligations in 2006, in order to reflect the changing conditions on residential fixed markets and on the corresponding wholesale markets. In particular, ARCEP considers that the wholesale line rental (WLR) product (VGAST) ordered in 2005 and effectively offered by the incumbent since April 2006 allows more effective and fairer competition to develop on these markets. The cost-accounting obligation remained untouched until ARCEP adopted the specific accounting decision in December 2006. Deregulation at this stage of development of the markets was, however, criticised by some alternative operators which pointed to, for example, price squeezes, lack of experience with the accounting-separation system or the potential for abusive fixed-mobile bundling offers. ARCEP contests this position and refers to its cost model for the provision of alternative communications services updated in 2006.

## **Broadcasting**

### *Market situation*

The breakdown of (digital and analogue) TV delivery modes to households in France can be summed up as follows (in December 2006): around 60.5% terrestrial, 23.6% satellite, 12.7% cable and 3.1% IPTV. Penetration by digital terrestrial television (DTTV), which was launched in March 2005, is growing steadily and covered an estimated 65% of the population in December 2006 (according to the CSA). While 80 to 85% should be covered in 2007, coverage of the remaining 15 to 20% is expected to be addressed through support measures provided for in a draft law pending before the National Assembly. (In comparison, cable is considered to cover 40% of the population.) This is also one of the subjects discussed in the Comité stratégique pour le numérique (digital strategy committee) launched by the French President in May 2006. Other issues to be addressed by this committee include switchover and the digital dividend.

Remarkable consolidation efforts were made in France in 2006. The merger between the two formerly competing satellite platforms was finally authorised in August 2006 subject to certain conditions. Earlier in the year, the two main cable operators had merged into a single company.

### *Regulatory issues (including market analyses and remedies)*

A draft law on modernisation of audiovisual broadcasting (“projet de loi relatif à la modernisation de la diffusion audiovisuelle”) pending before the French National Assembly sets the switchover date at 2011, to be preceded by a gradual switch-off to be decided by the CSA. Under the draft law, analogue free-to-air terrestrial broadcasters would be required to cover 95% of the population with their digital terrestrial broadcasts. Their programmes would also have to be freely available on satellite. The principle of authorisation of mobile TV services by the CSA would also be enshrined in the draft law.

Regarding market reviews, in particular of the market for broadcasting transmission services, ARCEP decided that only the market for infrastructure-based terrestrial TV broadcasting transmission services between transmission services undertakings was subject to *ex-ante* regulation, but did not analyse the market for transmission services provided to broadcasters. ARCEP would complete the market analysis on the basis of the impact of the current remedies. The Commission considers that the latter market should be analysed by a competent body and notified to the Commission.

## **Horizontal regulation**

### *Spectrum management*

The spectrum decisions are implemented in France, except for the ex-ERMES Decision (Decision 2005/928/EC). Moreover, a decree adopted in August 2006 (and an implementing order) provides for secondary trading of rights of use for specific, designated spectrum bands. Rights of use concerning broadcasting frequencies assigned by the CSA are excluded. Secondary trading is subject to approval by ARCEP in several cases.

In October 2006 ARCEP launched a public consultation on re-use of the 900-1800 MHz frequency bands for UMTS services and on a possible fourth 3G licence. One interesting lesson from the consultation is the interest in a fourth licence reported by ARCEP. ARCEP is expected to prepare a call for applications in time for a fourth licence to be awarded in 2007. There is also great interest in use of 2G bands for 3G services as soon as possible, not least to extend the coverage of 3G services.

WLL (WiMAX) authorisations in the 3.5 MHz band were granted on a regional basis (2 x 15 MHz per region) by ARCEP in July 2006. Four leading industrial players plus several Regional Councils have been granted authorisations. They are aimed at providing broadband (up to 2 Mb/s) in areas not satisfactorily served by (DSL) networks. This supplements the national authorisation granted in 2003. Some operators are expected to provide wholesale offers. These authorisations are also open to the above-mentioned secondary trading scheme, in the form of the possibility of partial trades (frequency, time and geographical partitioning).

Notwithstanding these developments, in November 2006 a report commissioned by the Minister for the Economy, Finance and Industry suggested that the current framework for spectrum management may not provide enough incentives for efficient use of spectrum. Conclusions - not endorsed by the French Government - include considering the possible use of auctions in several cases. The digital dividend expected from digitisation of broadcasting was also highlighted as an opportunity to promote innovative services (a specific committee has been set up to this end).

#### *Administrative charges*

A yearly overview of ARCEP's administrative costs and of the charges collected from operators is now provided in ARCEP's annual report.

#### *Rights of way and facility sharing*

Secondary legislation concerning rights of way was finally adopted in December 2005. It provides for maximum fees that can be imposed for use of the public domain. Its annulment is being sought in court by the Paris city council.

#### *Authorisations*

Although no action has been taken so far to coordinate adjustment to the regulatory framework of the hundreds of contracts between cable operators and local authorities, an amendment to the above-mentioned draft law on modernisation of audiovisual broadcasting pending before the French National Assembly would require the government to consult stakeholders and report on the issue.

### **THE CONSUMER INTEREST**

Generally speaking, consumer protection remained an important subject in France in 2006. Despite implementation of a set of voluntary measures adopted in 2005, a draft law to protect consumers was tabled by the Minister of Economy, Finance and Industry in November.

## **Universal service**

French law limits the possibility of being designated as “universal service provider” to undertakings that are able to cover all the national territory. Community rules provide that no undertaking should *a priori* be excluded from designation (provided it can deliver universal service alone or with others) and that the designation mechanism should ensure that universal service is provided in a cost-effective manner. The Commission decided to refer France to the Court in December 2006.

A draft consumer protection law pending before the French Assembly would allow the competent Minister not to designate a universal service provider, should the relevant parts of the universal service be considered sufficiently competitive.

## **Directory services and directory enquiry services**

France had failed for a number of years to produce a comprehensive directory or directory enquiry service. Steps taken mainly by ARCEP have brought this situation to an end and enabled the Commission to close the infringement procedure against France in October 2006. Many direct enquiry services have been launched since then. At the same time, consolidation is taking place and prices are said to have increased. ARCEP is looking into this matter as part of its efforts on premium-rate services (see below).

Regarding the universal service, the above-mentioned draft consumer protection law would allow the Minister not to designate a universal service provider for some or all components of the universal service (access and telephony, directory and enquiry services and public payphones).

## **Emergency services (112)**

The obligation to carry free of charge and properly route all calls to emergency services and for operators to transmit caller location information seems to be working effectively. Difficulties with caller location, translation and specific services for disabled people are being addressed in CICREST (the Interministerial Commission for coordination of telecommunications networks and services for the defence of public security) which brings together, amongst others, the relevant authorities, fixed and mobile operators and emergency services.

## **Number portability**

Implementation of mobile number portability (MNP) in France has not been satisfactory for some time compared with other EU Member States. This is due, in particular, to long delays not only for portability but also for contract termination. While new provisions were introduced back in 2005 to shorten portability (and contract termination) delays to 10 days, the decree making ARCEP responsible for implementation of the system was not adopted until January 2006 following consultations with the sector. The one-stop-shop system introduced by ARCEP together with direct routing is not expected to be effectively in place before the second quarter of 2007.

## **Consumer complaints and out-of-court dispute resolution**

Consumer complaints - over 30 000 to the Directorate-General for Competition Policy, Consumers Affairs and Fraud Control of the Ministry for the Economy, Finance and Industry (DGCCRF) in 2005 - increasingly concern broadband subscriptions. (Previously, mobile subscriptions were the main cause for concern.) This has led to various regulatory and self-regulatory initiatives.

The DGCCRF can investigate individual complaints from consumers about electronic communications providers. It also acts as an informal mediator on a case-by-case basis, alongside other out-of-court dispute resolution mechanisms (e.g. the telephony mediator and the net mediator). According to ARCEP, consumer requests for assistance in contractual disputes falling under its responsibility mainly concern pre-selection, unbundling and mobile number portability. A handbook for consumers has been prepared by representatives of industry, consumer associations and the DGCCRF.<sup>77</sup> ARCEP has also set out procedures to follow for mediation to succeed.<sup>78</sup> Consumer associations would, however, like to see ARCEP itself in charge of individual disputes.

While there are several routes to seek consumer protection, the large number of bodies claiming some role in dispute resolution might not be the best way to serve this objective and some streamlining could be beneficial.

This situation prompted the government to propose specific provisions regarding electronic communications in the draft consumer protection law. In particular, they would prevent internet access providers from charging customers for the time spent waiting for their calls to hotlines to be answered. It would also include specific terms and conditions for terminating subscription contracts, including a 10-day maximum period for terminating contracts. Other, non-sector-specific, provisions of the draft law could also have an impact on electronic communications, not least certain practices in the area of broadband, such as better protection against abusive clauses, a class action open to consumer associations or improved enforcement powers for the DGCCRF.

### **Premium-rate services**

In November 2006 ARCEP launched a public consultation on premium-rate services, including directory enquiry services, arguing that this important market (€650 million according to ARCEP at the end of the second quarter) is not functioning satisfactorily and that both premium-rate service providers and consumers are increasingly dissatisfied. ARCEP suggests, in particular, symmetric regulation of several aspects of the relationship between operators involved in premium-rate services, from accessibility through conveyance of traffic to billing. ARCEP also suggests other improvements (not necessarily under its jurisdiction) to reinforce consumer protection and consumer confidence, including on content deontology and tariff transparency. The Commission services will examine the compatibility of such measures with the regulatory framework.

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<sup>77</sup> “Guide pratique des communications électroniques” [Practical guide to electronic communications], available at: [http://www.conseilconsommation.minefi.gouv.fr/guide\\_interactif\\_securise.pdf](http://www.conseilconsommation.minefi.gouv.fr/guide_interactif_securise.pdf)

<sup>78</sup> ARCEP, Annual Activity Report for 2005, p. 359.

## **Data protection**

A data retention decree was adopted in March 2006, including a list of data to be stored by operators. Further implementing measures are, however, required, which led associations to lodge a request for annulment before the Administrative Court (Conseil d'Etat).

# ITALY

## INTRODUCTION

The positive trends have continued in terms of growth in the broadband and mobile markets (including in particular 3G) and improvements in the competitive situation in all markets. Thanks to an effective regulatory and price environment, broadband penetration and local loop unbundling have grown substantially since last year.

The national regulatory authority has been effectively reorganised and has managed to notify all markets, but it has continued to be slow in taking some important regulatory measures like, the approval of the incumbent's accounting reports, bitstream offers, spectrum assignment. It has dealt with a number of regulatory challenges resulting from convergence (e.g. voice over IP, integrated fixed-mobile services, bundled retail offers) and there have been persistent problems with ineffective emergency services. The Commission launched an infringement proceeding with regard to a law addressing digital switchover and the Italian government was in the process of amending this law at the time of writing this report.

## REGULATORY ENVIRONMENT

### Main regulatory developments

As a result of its market analyses, the national regulatory authority (AGCOM) has imposed obligations on all wholesale markets with the exception of mobile access origination and wholesale international roaming. Some obligations have also been imposed on the retail markets, where wholesale remedies were not deemed to be sufficiently effective by AGCOM.

### Organisation of the NRA

An internal reorganisation of AGCOM started in February 2006. There are now separate departments in five thematic areas (electronic communications, media and content, market analysis, consumer protection, studies and research), which have significantly improved the efficiency of monitoring and enforcing regulatory obligations (e.g. there were three times more inspections than in the previous year). Lack of human resources nevertheless remains an issue.

Appeals to the Court of First Instance usually take a very long time (up to 4 years), but it is possible for complainants to ask for an urgent, provisional measure to be taken which is dealt with by the Court within 2-3 months. There has been an increase in the number of such requests concerning both AGCOM's decisions and the incumbent's commercial practices. The Italian system for suspension of NRA decisions has been held up as an example of "best practice" by the European Regulators Group.

### Decision-making

Between September 2005 and June 2006, AGCOM notified all markets subject to ex ante regulation, with the exception of remedies for the broadcasting transmission services market. Specific new remedies and guidelines for fixed retail access markets, wholesale unbundled access and wholesale broadband access were adopted in late 2006 (on wholesale line rental) or were about to be adopted following consultation of all operators concerned (on migration

procedures and bitstream offer). AGCOM has been quite late in completing market analyses. There is also a significant delay for important decisions on, for example, approval of the incumbent's regulatory accounting, spectrum assignment, and the fund for universal service.

AGCOM's decision-making and sanctioning powers have been significantly enhanced by two laws adopted in 2006, which notably give the NRA the power to enforce obligations voluntarily undertaken by operators. The possibility for operators to reduce fines by up to 1/3 through early payment has also been abolished.

The incumbent has considered some of AGCOM's decisions to be disproportionate and not comparable to the practice of other NRAs (e.g. the limit imposed on fixed/mobile offer and the asymmetry in the wholesale fixed termination rates). On the other hand, AGCOM had approved an incumbent's retail broadband offer that had recently been found to be anti-competitive by the Regional Administrative Court. Some divergences between AGCOM and the national competition authority, AGCM, also emerged in the analysis of the mobile access market.

## **MARKET AND REGULATORY DEVELOPMENTS**

Important developments have been taking place in the Italian market with regard to convergent services and voice over IP (VoIP). After the downstream merger with its mobile branch in March 2006, the incumbent defined a convergent business model (network/technology, wholesale and retail market, accountancy, single subscriber database). The incumbent has implemented an extensive IP network, both at core and at access level, and is currently offering triple and quadruple play services (VoIP, IPTV and integrated fixed-mobile services).

In an effort to create a level playing field on the new IP networks, AGCOM has imposed a new obligation on all operators to negotiate direct IP interconnection so as to guarantee full interoperability of voice IP-based services. Furthermore, the incumbent must provide direct voice interconnection through IP protocols. A public consultation is currently under way, with the aim of further implementing the above obligations and defining the general regulatory framework for new generation networks (NGNs).

The incumbent has launched a new convergent fixed-mobile service, which has been temporarily authorised by AGCOM up to a maximum of 30 000 subscribers. AGCOM has justified this restrictive decision on the basis of the lack of any commercial agreements between alternative fixed operators and mobile network operators that could provide similar competing services. For the time being, the only kind of wholesale offer that seems to be available is fully controlled by the incumbent.

In autumn 2006, one mobile operator (which also had an authorisation for the provision of fixed services) started offering an integrated fixed-mobile service (a "traditional" mobile service with the possibility of using the fixed number for fixed voice telephony within a limited number of cells). The mobile operator also included the possibility for customers to maintain the fixed number. This was found to be anti-competitive by a Court judgment, which considered the fixed number portability to an integrated fixed-mobile service not to be provided for by the Italian Code. The Ministry has provisionally classified the proposed service within the general category of fixed voice telephony services (PATs) and thus no specific authorisation has been provided for. AGCOM has launched a public consultation in



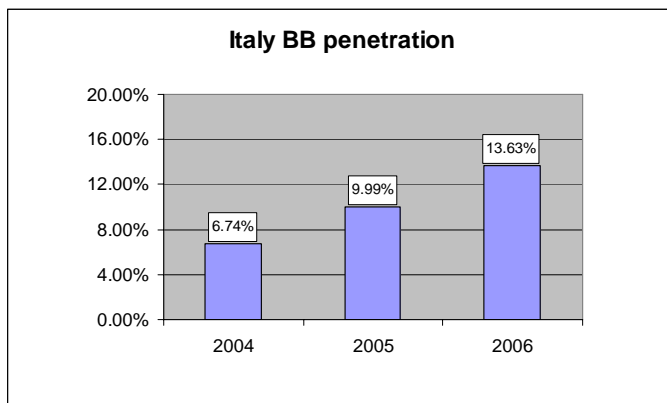
order to evaluate the technical features of the service and whether specific regulatory measures are necessary (e.g. number portability within different types of services).

Alternative operators welcome AGCOM’s regulation for VoIP, as adopted in March 2006. The regulation distinguishes between “fixed” services (restricted nomadic) and nomadic services that use geographic and non-geographic numbers, respectively. The former have to comply with all PATS obligations (such as number portability, calling line identification, caller location for emergency services), while the latter enjoy lighter regulation. There seemed to be a lack of technical regulation that would enable operators to fulfil the requirement of caller location for emergency services imposed on nomadic VoIP.

In September 2006, the incumbent announced its intention to split into three separate companies (fixed network, fixed/broadband services, mobile). Discussions with AGCOM on the functional separation of the fixed network (and possible relaxation of obligations on retail markets) have already started and will involve all operators concerned. Results were not expected before 12-18 months.

## Broadband

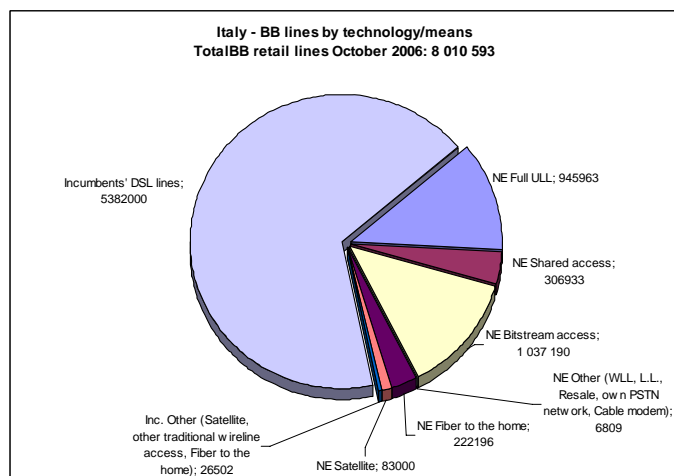
### Market situation



The broadband market in Italy comprises mainly xDSL lines with a limited number of optic fibre connections. Cable-modem and wireless-based broadband infrastructure is very limited. The total broadband lines (BB) – over 8 million in October 2006 - had increased by more than 2 million lines since October 2005, a growth of 37%. This increase can mainly be attributed to extensive

use of ADSL technology, by both incumbent and alternative operators. While the penetration rate for retail broadband access has increased considerably, reaching 13.6% in October 2006, it nevertheless remains lower than the EU average of 15.7%.

Italy is among the Member States with the highest number of fully unbundled lines (1.8 million wholesale lines in October 2006) and among the lowest wholesale tariffs (€8.05/month). As a result of effective regulatory conditions for shared access, there has been a significant increase in this access option, from around 100 000 lines in October 2005 to 342 000 lines in October 2006. Alternative operators have improved their market share of total BB lines from 30% last year to 32% in October 2006 (this percentage would be significantly higher if 3G connections were included).



### *Regulatory issues (including market analyses and remedies)*

According to the reference offer approved by AGCOM at the end of 2006, the monthly fees for local loop unbundling (LLU) (currently €8.05) will be further reduced to €7.8 in 2007. While the incumbent has claimed that this will be a below-cost tariff, problems on pricing and availability of co-location and co-mingling seem to persist, as well as on certain provisioning services. With a view to increasing the level of competition on the broadband market, AGCOM's decision on wholesale broadband access (bitstream market) includes an obligation for the incumbent to allow access to digital subscriber line access multiplex (DSLAM) for sites not opened to LLU. Pricing obligations have been changed from retail minus to cost orientation, while access at IP-managed level is left to commercial negotiations (retail minus to apply until the full implementation of AGCOM's decision). While the incumbent's offer is currently analysed by AGCOM, alternative operators are worried about the delay in the availability of the new services.

The new regulation on fixed market includes an obligation for the incumbent to provide wholesale line rental (WLR) at a retail-minus price on both non-active lines and active lines not open to full or shared access. The service should be available at the latest by November 2007. AGCOM regards this measure as an intermediate step to the further development of infrastructure-based competition. Alternative operators have criticised the length of the implementation procedure, while the incumbent took the view that the measure should not apply to sites opened to LLU but not taken up by alternative operators and that the WLR service cannot be operational before 15-18 months from the reference offer.

## **Mobile markets**

### *Market situation*

Italy continues to be one of the EU countries with the highest mobile penetration rate (almost 134%), an increase of almost 15 percentage points since October 2005. The mobile branch of the incumbent has slightly improved its position in the market (currently at 40.6%), with a market share over 8 percentage points higher than the second largest operator. UMTS subscribers continue to increase at a very fast rate, and AGCOM estimated that at the end of 2006 they would reach 12 million (compared to the 2.6 million at the end of 2004).

### *Regulatory issues (including market analyses and remedies)*

AGCOM's decision on the mobile call termination market designated all four mobile operators as having SMP on their own networks in the voice termination market and imposed on all but one a maximum mobile termination rate with a 3-year glide path (2006-2008). For the UMTS operator, AGCOM was of the opinion that price control would currently amount to an excessive burden. AGCOM is currently reviewing the need to extend price control obligations to the UMTS operator.

AGCOM's decision on the mobile access market (market 15) found that there was no individual or joint SMP on the wholesale mobile access market. Thus, there is no obligation for mobile network operators to sign wholesale access agreements. The first commercially negotiated wholesale access agreement was recently signed by one mobile operator with a large distribution company and other agreements are currently under negotiation.

Consumer associations have complained about the high cost of recharging a pre-paid card (up to a maximum of €5). A joint investigation by AGCOM and AGCM found a lack of transparency and a possible collusive behaviour in this practice; AGCOM has launched a public consultation on this issue. The Italian Government has abolished by decree the cost of re-charging a pre-paid card (January 2007).

## **Fixed markets**

### *Market situation*

The overall market share of alternative operators in the fixed voice telephony market in terms of revenues (32.6% in December 2005) has increased by 1.9% since December 2004. The main increase has occurred in the international calls market (+11.5%). The overall fixed market share for alternative operators is almost 2% lower than the EU average. Due to significant network investments, the percentage of subscribers using alternative operators for direct access in July 2006 was 9.2%, 3.9 percentage points higher than in July 2005.

### *Regulatory issues (including market analyses and remedies)*

There are still long delays in AGCOM's approval of the incumbent's regulatory accounting reports. At the time of drafting of this report, the last accounting report, approved in December 2004, concerned the year 2001, while the incumbent had already submitted its reports for 2002-2004. While a Network Cap system for the pricing of wholesale services of the incumbent was introduced in 2003, this delay seems to create regulatory and pricing uncertainty on the market. AGCOM's justification for the delay is the complexity of the required analysis and the very strict procedures for selecting an independent auditor. Thought is being given to the option of giving immediate priority to the 2004 report. The incumbent has strongly criticised the use of (and attendant administrative burden for) different cost accounting models and the apparent lack of a single, coherent approach.

There has been fierce controversy as regards AGCOM's decision on call termination on fixed networks (call termination market), which has created asymmetric termination charges (€0.154/min for termination to alternative operators' networks, €0.073/min for termination to the incumbent's network at single level) and a 5-year glide path towards symmetric tariffs. Alternative operators can ask AGCOM to approve higher termination rates if this is duly justified by evidence of higher costs. Some of them have already submitted requests for a termination price of over €0.3. AGCOM has not allowed the incumbent to differentiate its retail prices according to the termination rates of the different alternative operators' networks, considering that transparency towards consumers, the low volume of traffic involved and the glide path mechanism would not justify this price differentiation. AGCOM has undertaken to review its current position and come up with a new proposal in March 2007 which takes account of the need for alternative operators to become more efficient over time. Furthermore, AGCOM has approved a favourable price cap and allows the incumbent to set a more flexible retail price for bundled offers.

In 2005, the Commission had opened an infringement procedure for incorrect transposition of the method for calculating the incumbent's interconnection costs. An amendment to the contested article of the Italian Code is currently pending approval. The incumbent's commercial offer for wholesale leased lines based on the new network architecture (completely different from the direct circuits used so far) seems to lead to a significant

increase in the prices for operators that are less infrastructure-based. The incumbent's new reference offer is being examined by AGCOM.

As regards the retail fixed market, AGCOM proposes to maintain the price cap for all retail fixed calls (including calls to mobile phones), which will be made more favourable for the incumbent once certain quality indicators are fulfilled. This will also contribute to a gradual move towards infrastructure-based competition.

In May 2006, the Milan Court of Appeal found the incumbent guilty of win-back practices using sensitive wholesale information. Subsequently, AGCOM has carried out control inspections and the outcome of these activities is being analysed.

The *Consiglio di Stato* (the Administrative Appeal Court) confirmed the fines imposed on the incumbent by the national anti-trust authority (AGCM) for the exclusionary strategy against competitors during the period 2001-2004 (AGCM decision A/351 was partly upheld by the Court of First Instance).

## **Broadcasting**

### *Market situation*

According to ISTAT,<sup>79</sup> in February 2006 almost 94% of households received terrestrial TV and 25% received satellite TV services. Italy has no cable TV service. The digital TV switchover is progressing well in Italy, although to a lesser extent than in 2005. In September 2006, there were 4.3 million digital decoders sold, almost double the number sold in July 2005. Nevertheless, only 5.2% of Italian households have a digital TV set, while 87.8% still have traditional analogue TV sets. Due to the difficulties to reach the critical mass, the Ministry of Communications postponed the switch-off date at national level to the end of 2012 (switch-off in the two pilot regions will take place during 2008).

All national analogue TV operators and a significant number of local TV operators are currently simulcasting using both technologies. A mobile operator has acquired a local TV operator's licence with the aim of setting up a national TV digital network. The incumbent and an alternative fixed operator are currently offering IPTV. In May-July 2006, a mobile operator and the UMTS operator launched a commercial DVB-H service. Two mobile operators have already signed agreements with TV operators for the transmission band, while the UMTS operator now has a licence as a TV network operator (through the acquisition of an existing TV broadcaster).

### *Regulatory issues (including market analyses and remedies)*

In July 2006, the Commission opened an infringement proceeding for the non-conformity of the Italian broadcasting law as regards the transitional period for the implementation of digital TV in Italy. In particular, the Commission found that the law precludes operators which are not active in analogue transmissions from creating their own digital networks and allows existing broadcasters to acquire more frequencies than they need for simulcasting their programmes in analogue and digital. While it could be legitimate to facilitate existing analogue TV operators' switchover to digital, such advantages are not mitigated by any provisions concerning the digital dividend, as the frequencies that will become available

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<sup>79</sup> *Istituto Nazionale di Statistica.*

through the transition to digital technology seem to remain in the hands of the current analogue operators. Italy has accepted the Commission's position and has prepared a draft law to address the problems, which is currently being examined by the Commission services and the Italian Parliament.

According to AGCOM's notification of the broadcasting transmission services market (market 18), the two major TV broadcasters have a collective dominant position on the market for analogue broadcasting transmission services. Remedies still have to be notified to the Commission.

AGCOM has considered IPTV as an emerging service and excluded it from the market of broadcasting transmission services (market 18). Alternative fixed operators are worried about the possible leverage by the incumbent from the broadband to the IPTV market through the bundling of access and content and the refusal to interconnect/interoperate its service with other operators.

AGCOM is setting up an electronic national database (*catasto delle frequenze*), which will give updated and verified information on the TV frequencies allocated to and used by national and local operators.

## **Horizontal regulation**

### *Spectrum management*

Legislative measures to implement the latest Radio Spectrum Decisions are included in the new National Frequency Plan, not yet approved at the time of writing this report. The Broadband Wireless Access (WiMAX) technology is perceived by the market as an important tool for increasing competition on the broadband market and reducing the digital divide. However, the licences for the provision of WiMAX services in the 3.5 GHz band have not yet been granted. While the technical trials were concluded in June 2006, an agreement with the Ministry of Defence for the release of the relevant frequencies was concluded only in December 2006. In November 2006, AGCOM launched a public consultation on the licensing procedures for WiMAX services.

There is a substantial delay in taking a decision on the 900MHz spectrum not already assigned (see the 2005 Implementation Report). Discussions at European level regarding the possible opening of the band to technologies other than GSM will be taken into account in the process.

### *Authorisations*

The Ministry of Communications has recently proposed to increase the UMTS licence term from 20 to 35 years for current licence holders. The Budget Law for 2007 amends Article 25 of the Code of electronic communications, providing that all authorisations can be extended by Ministerial decree, on specific request and on the basis of a detailed technical and financial plan (to be evaluated jointly by the Ministry of Communications and AGCOM).

### *Rights of way and facility sharing*

There continue to be questions raised with regard to rights of way on highways (managed by private companies under state concessions), railways (managed by a state enterprise) and non-metropolitan roads (managed by a state agency). A formal complaint introduced to the Commission in November 2006 alleges the existence of arbitrary and excessive economic

conditions, long delays in granting rights of way, discrimination in favour of the incumbent and ineffective dispute resolution systems. The Commission services are looking into this complaint.

## **THE CONSUMER INTEREST**

### **Universal service**

No universal service provider has been designated. The incumbent has continued to provide the universal service. AGCOM is late in approving the annual net cost for the provision of the universal service components (the last net cost approved by AGCOM relates to 2002. The approval of the net cost of 2003 has been delayed by AGCOM in order to introduce methodological improvements which are expected to speed up the whole process.

### **Directory services and directory enquiry services**

Since the entry into force of the Italian Code in 2003, directory and directory enquiry services are no longer part of the universal service obligation. The price of these services offered by the incumbent had risen considerably when, approximately two years later, competing services entered the market (there are currently 5 main service providers offering such services in addition to the incumbent and two mobile operators). Competition seems to have had no significant decreasing effect on prices. Consumers have been expressing strong concerns and AGCOM took two relevant regulatory decisions. Firstly, it significantly decreased the maximum price for non-geographic services (namely, those providing directory enquiry services) from fixed calls. Secondly, in September 2006 it took a provisional measure under Article 7(6) of the Framework Directive, identifying the four mobile operators as having SMP in the market of mobile call origination towards directory services numbers and imposed a price not higher than the double the current termination rate on their networks. AGCOM subsequently notified a separate market of mobile call origination towards non-geographic numbers. The Commission was examining this notification at the time of writing this report.

### **Emergency services (112)**

Caller location information is not available from mobile networks. Furthermore, there is no standard automatic procedure for caller location from fixed network and the current system does not allow the location of fixed numbers that are not included in the unique numbering database. There is still no centralised Public Safety Answering Point (PSAP) and the level of coordination of the emergency services concerned is very limited. The Commission services are looking into the matter, in particular after the recent amendment to the original draft to create a centralised PSAP coordinating all national emergency services.

In view of the delay in implementing the relevant provisions of the Universal Service Directive properly, in particular as regards caller location from mobile networks, the Commission is continuing with the infringement proceeding.

### **Number portability**

The successful operation of mobile number portability (MNP) was further confirmed in 2006. From its launch in 2002 to 31 August 2006, more than 9.6 million customers have changed operator using MNP, of which about 4 million in the last year. In order to solve the persistent problem of delays (50 000 numbers waiting to be ported and delays of up to 45 days), in June

2006 AGCOM forced operators to increase their daily capacity of executing MNP requests from 7500 to 9000, to be effective from November 2006. Several mobile operators have complained that this was an unnecessary cost in view of the fact that during the summer the delay for number porting dropped to 7 days maximum and the waiting list had almost vanished.

As regards fixed number portability, consumers' associations have complained of delays in porting numbers from the incumbent to alternative operators and of the difficult and expensive procedures for porting numbers between alternative operators.

### **Premium rate services and activation of non-requested services**

Despite inspections and sanctions imposed by the Italian authorities, serious problems of abusive behaviour of some premium rate service providers seem to have continued. In March 2006, the Ministry of Communications approved a decree regulating voice and data premium rate services delivered via fixed or mobile networks, aimed at preventing abuses. Consumers' associations expressed strong criticism of the final version of this decree, in particular with regard to maximum prices allowed, delays and limitations in implementing an opt-out mechanism after a certain price ceiling and possible bundled invoicing with other IP services. A revision of the numbering plan was under way at the time of writing this report. This revision would seek to further clarify the type of services that can be provided within each category of numbers and make it easier to sanction inappropriate use.

There were also persistent problems of activation of non-requested services, although to a lesser degree than in 2005. In 2006, AGCOM imposed high fines on four telecom operators, and a new regulation on non-written contracts in this field is currently under review. In February 2006, the privacy authority imposed more stringent internal security standards on telecom operators for the processing of personal data, along with specific obligations for dealers and call centres, such as the need to obtain the customers' prior specific consent for promotional calls/communications. Sanctioning proceedings by the same authority against some telecom operators for activation of non-requested services are ongoing. Monitoring activities are in progress in order to verify compliance with the guidance provided.

### **Data protection**

In 2005, the Italian Privacy Authority had issued specific guidance on the data protection measures to be taken by providers of interactive TV services, such as the ban on setting up centralised databases of personal information, secure communication channels using state-of-art technology, the six-month limit for data retention, etc.

The Privacy Authority has been very active in carrying out inspections on several operators' databases storing subscriber data. Furthermore, specific measures have been imposed on a major operator, in order to improve the security of subscribers' personal data, as the procedure in place had been found to be insufficient. The above initiatives are partly a consequence of alleged unauthorised use of such data kept by the incumbent.

# CYPRUS

## INTRODUCTION

Despite a number of encouraging developments in 2006, competition on the Cypriot electronic communications market is still limited, with the very strong market position of the 100% state-owned incumbent operator in the fixed, mobile and broadband markets. Apart from the slow progress in the second mobile network operator's ("MNO") market position, IPTV, mobile TV and triple-play services were prominent market developments in Cyprus in 2006. Nevertheless, there is still low broadband penetration, no national broadband strategy and a very slow process of granting rights of way to alternative operators, which creates serious barriers to rolling out alternative networks, both in the fixed and in the mobile sectors.

As a result of the significant amount of regulatory activity over the past year, all the markets listed in the Recommendation, with the exception of the wholesale international roaming market, have been analysed and products such as bitstream access and Wholesale Line Rental ("WLR"), aimed at enhancing competition on the market, have been introduced as a result. Their impact on the market, however, still needs to be seen.

## REGULATORY ENVIRONMENT

### Main regulatory developments

2006 saw a number of encouraging developments in Cyprus's regulatory approach. First of all, the OCECPR analysed and sent draft measures to the Commission on all the markets listed in the Recommendation, with the exception of wholesale international roaming. The competent authorities took furthermore necessary steps in order to make available 112 caller location information from all operators as well as comprehensive directory/directory enquiry services.

### Organisation of the NRA

In Cyprus, the main regulatory tasks are carried out by the Department of Electronic Communications of the Ministry of Communications and Works ("DEC") and the Office of the Commissioner for Electronic Communications and Postal Regulation (OCECPR).

As the Minister of Communications and Works coordinates the ownership rights of the incumbent operator within the Council of Ministers and also retained a number of regulatory functions, the Commission addressed concerns as to the independence of this regulatory body in an infringement proceeding launched in October 2005. Meanwhile the Cypriot primary legislation was amended to ensure structural separation of regulatory and ownership functions in respect of the incumbent operator. The regulatory powers on radio-communications issues of the Council of Ministers and the Minister for Communications and Works were transferred to the Director of the DEC, who thus became the sole source of regulatory power over radio-communications issues, and the management function of the Minister for Communications and Works concerning the incumbent operator was transferred to the Minister of Finance. As a result, the Commission closed this case in June 2006.



While concerns were raised by market players about the length of dispute resolution, the 4 dispute decisions in 2006 were all delivered by the OCECPR within 4 months as required by the relevant Cypriot relevant legislation and the Framework Directive.

Appeals against the DEC's and the OCECPR's decisions are addressed to the Supreme Court. During the appeal procedure the decisions stand. According to the alternative operators a large number of the decisions of the OCECPR are systematically challenged by the incumbent operator, which obviously has the effect of reducing legal certainty and predictability in the market.

### Decision making

In October 2005 the Commission initiated an infringement proceeding against Cyprus as the latter had not notified any draft measure at that time. Since then, the OCECPR, has completed its analysis of almost all the markets listed in the Recommendation. The first notifications from Cyprus were registered in January 2006, and the OCECPR very quickly accomplished the first round of its market review. As a result, the OCECPR has since analysed 17 markets within a year more or less, which was considered to be a heavy burden on both the regulatory body and operators alike. Some expressed the view that procedures for the collection of data were particularly heavy for smaller operators.

All the markets analysed are considered to be non-competitive, with the exception of broadcasting transmission services, where the OCECPR applied the three-criteria test and concluded that the wholesale market for broadcasting transmission services is not subject to ex ante regulation.

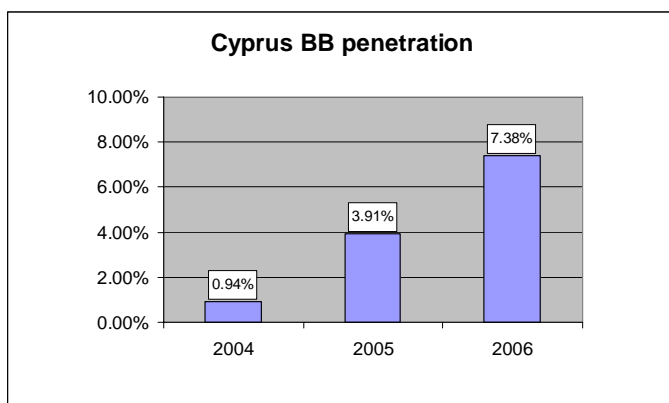
Up to November 2006, the OCECPR had taken final measures in four of the markets, namely in the wholesale markets for LLU, for broadband access, for mobile access and for call termination.

## MARKET AND REGULATORY DEVELOPMENTS

The Cypriot e-communications market is only at the stage of slow transition from a monopoly to a competitive situation, as witnessed by the incumbent operator's market share in the fixed, mobile and broadband markets. The slow opening of the market is particularly regrettable as the convergence of services and products is increasing demand by end-users.

### Broadband

#### *Market situation*



Following broadband penetration figures of 0.94% and 3.91% in 2004 and in 2005 respectively, broadband penetration in Cyprus in 2006 was of 7.38%. Despite the fact that broadband penetration has almost doubled in a year, this figure is still relatively low and only slightly above the new Member States' average (6.66%) but well below the EU-25 and old Member States' averages (15.69% and 17.41%

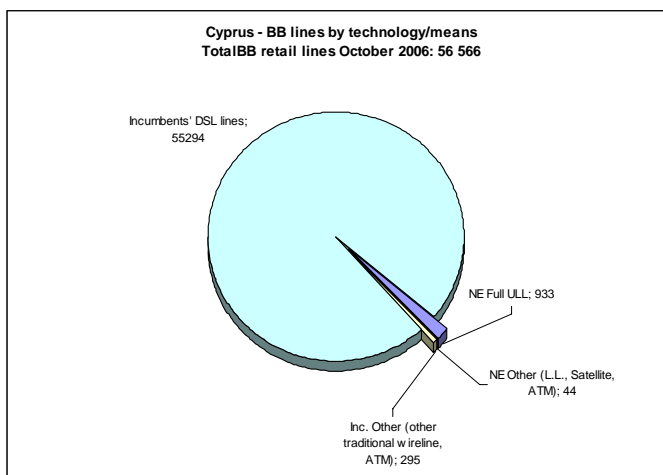
respectively).

The national broadband strategy has still not been adopted by the competent authorities.

The incumbent operator's broadband market share is 99% which clearly shows strong dominance on this market. In addition, on the broadband market, platform competition is not flourishing as DSL is the main technological means.

The incumbent's broadband operations are concentrated more in the capital than in the countryside.

As the price of dial-up internet access is low, no real willingness seems to exist to move towards broadband.



### *Regulatory issues*

In its market analysis of the LLU market, the OCECPR, took account of its initial stage of development and imposed full and shared access on the incumbent's local loop or sub-loop in a non-discriminatory and transparent manner, at cost-based prices. The incumbent is also obliged to publish a RUO. As regards the wholesale broadband access market, the OCECPR required the incumbent operator to provide bitstream access based on the "retail minus" method.

The 2006 RUO was adopted and published on 29 December 2006. Consequently, no changes in the RUO prices were registered in comparison with 2005. The monthly rental fee and the connection fee for full unbundled local loop are below the EU average. In this respect, alternative operators complain about the low retail prices practiced by the incumbent operator. Within a few months, the number of the unbundled local loops has grown rapidly and, up to November 2006, 933 local loops had been unbundled under the 2005 RUO, thus allowing new entrants to start offering their broadband services. As a result, one of the main alternative operators specialising in broadband services could launch its triple play services (already provided by the incumbent). This new entrant, a strategic partner of the Electricity Authority of Cyprus, owns its own fibre optic cables on the electricity network and reaches the end-users via the sub-loop of the incumbent.

Under the 2006 RUO, the timeframe for unbundling was dramatically reduced from 25 to 6 days.

### **Mobile markets**

#### *Market situation*

In Cyprus there are two MNOs, the incumbent with a 90% market share (in terms of subscribers) and the second MNO with a 10% market share (6.5% in 2005), which was granted its mobile licence on 4 December 2003 for a period of 20 years. Under this licence, the second MNO had the obligation to ensure that its network reaches 50% territorial

coverage by December 2005 which was achieved. This coverage must increase to 75% by the end of 2007. Both MNOs have 3G licences and provide related services. In 2006, mobile penetration in Cyprus reached 113.6% (100% in 2005), with 900 000 subscribers.

### *Regulatory issues*

Cyprus is one of the rare Member States where the mobile access market has been found not to be competitive. Therefore, the dominant MNO (the incumbent operator) has been designated as having SMP. In view of the strong market position of the incumbent operator and the very early stage of transition from a monopoly to a competitive situation, the Commission underlined that in the absence of mandatory MVNO access, the OCECPR should ensure by way of stringent and effective wholesale regulation that the two MNOs currently on the market in Cyprus are able to compete at arms length.

The second MNO stressed the need to regulate, not only the wholesale market, but also the retail market for mobile access and call origination so as to ensure a fixed margin. The incumbent operator's regulatory obligations (pricing) on the retail mobile market were revoked on 1 April 2005 by the OCECPR due to the fact that no mobile retail market is defined in the Commission Recommendation. Since there was only a small margin between the incumbent's retail prices and national roaming prices, the second MNO submitted a complaint to the Commission for the Protection of Competition ("CPC"). The CPC issued an interim order in July 2005, requiring the incumbent operator to raise its prices to the pre-April 2005 rates, to which the incumbent has, however, failed to respond. In the same case the CPC imposed a CYP 2.2 million (€3.8 million) fine on the incumbent in January 2006 for abuse of a dominant position in the market for mobile telephony services. The CPC found the incumbent guilty of its dominant position in that it had reduced its charges to its customers in anticipation of the second MNO's entrance onto the market; had implemented pricing similar to the second MNO's; and had significantly increased its advertising expenses.

In its comments following the notification of the mobile access market, the Commission called upon the OCECPR to impose price regulation with regard to the national roaming services the incumbent is obliged to offer to the second MNO. The Commission emphasised that the price of national roaming services should be cost-based and permit a suitable margin between the incumbent's retail tariffs and its wholesale national roaming tariff. The price of national roaming was fixed by the OCECPR at €0.0214, which the second MNO found to be twice as high as it should be from its own cost calculation. As a result, the Weighted Average Cost of Capital ("WACC") in mobile prices changed to 14.19%. The price for wholesale national roaming services is crucial in Cyprus, as the second MNO has not yet completely rolled out its own network. It is currently having problems with the roll-out of its masts and antennas because of the administrative slowness of the granting process (town planning and building permits are both required). As a result, the coverage of the second MNO is still very meagre (55% in July 2006), despite its obligation to reach 75% territorial coverage by December 2007 and its desire to achieve total territorial coverage as soon as possible.

Moreover, it has to be noted that mobile call termination charges in Cyprus are very low (the incumbent's termination rate is €0.0216/min and the second mobile network operator's €0.0316/min following asymmetric price regulation). Furthermore, the second MNO WAS required to publish a RIO only on 1 January 2007 and will not come under the accounting separation obligation until its turnover exceeds the amount of €50 million.

## **Fixed**

### *Market situation*

In Cyprus, the incumbent operator still has a dominant position in the fixed voice telephony sector. The incumbent, a semi-governmental organisation and a vertically-integrated operator, started operations in 1960. Its semi-governmental and state-owned status, coupled with its financial strength, has made it extremely difficult for new entrants to compete. In the fixed voice telephony sector, the incumbent's total revenues in 2005 accounted for 91.2% of all types of fixed calls and 86% of international calls. There has only been a very slow decrease in the market shares of the incumbent, as these figures have remained more or less stationary over the past year and are far from the corresponding EU averages (65.8% and 56.7% respectively). For all local calls the incumbent's market share is 97.5%. This situation is likely to be due to the low retail prices offered by the incumbent where it faces competition from new entrants and can be described as a considerable barrier to entry for alternative operators.

Despite the recent minor reorganisation of the activities of the Minister of Finance in respect of the incumbent, ownership still remains with the Government. However, the Minister of Finance is now able to collect a share of the profits. That said, as the incumbent is still not obliged to make a profit and dividends are not automatically paid to the State, the incumbent operator cannot be considered to be subject to normal business constraints.

Alternative operators provide voice telephony services mainly through carrier selection, pre-selection and for the purposes of accessing the internet through public switched telecommunications networks. The incumbent and one of the new entrants already provide triple play services in Cyprus.

### *Regulatory issues*

In its analysis of fixed retail access markets, the OCECPR, took account of the monopoly position of the incumbent, and imposed CS/CPS (already in place before the market analysis) and WLR obligations on the incumbent as had long been requested by new entrants to allow them to have a direct contractual relationship with their end-users and to charge them with a single bill.

The carrier pre-selection process has improved but as a consequence there have been allegations that the incumbent operator has launched allegedly anti-competitive win-back campaigns targeting all customers changing to an alternative operator. As a result, the OCECPR inserted a "Subscriber Win-back Code" in the incumbent's 2006 RIO, adopted in October 2006, in an effort to minimise this kind of market behaviour.

As a result of the transitional measures, the RIO 2005, published on 8 April 2005, showed a decrease in charges for interconnection and backhaul services, especially in relation to submarine landing stations, which can be considered as a bottleneck. Following the market analysis of the wholesale market for call termination the incumbent operator and a number of new entrants are obliged to publish their RIOs. To improve interconnection services, penalties are included for delays in provision/establishment after fault of services. A slight drop in IC charges was observed in 2006, which are already well below the EU average.

After benchmarking the one-off and monthly rental charges for 2 and 34 Mbit/s leased part circuits used for interconnection at the third lowest of all Member States in the absence of sufficient information about the actual costs in the incumbent operator's costing system, in 2006 the OCECPR designated the incumbent as an operator with SMP in the retail market for the minimum set of leased lines in the wholesale markets for terminating segments of leased lines and trunk segments of leased lines.

## **Broadcasting**

### *Market situation*

In Cyprus, end-user connections are predominantly via analogue terrestrial transmission (88%) and satellite (8%) in order to receive radio and television signals. Eight television channels (six free-to-air and two pay-tv channels) and 13 radio stations – all with nationwide coverage – are offered via analogue terrestrial transmission. Cable and xDSL each have less than 5% end-user penetration and are in the early stages of development.

Two analogue channels have been reserved to facilitate the introduction of digital terrestrial television in Cyprus. 2012 was set as the date for analogue switch-off; but as part of its triple play offer the incumbent already carries digital sound and image through a telephone line to its subscribers via a set-top box.

### *Regulatory issues*

The Cypriot authorities notified the market analysis and the draft measure relating to the market for broadcasting transmission services to the Commission in September 2006. The OCECPR proposed excluding cable, xDSL and satellite from ex ante regulation. It concluded that the markets for analogue television transmission are not subject to ex ante regulation, taking into account that there are no high and non-transient entry barriers in the market, the obligation for broadcasters to be self-sufficient<sup>80</sup> and that broadcasters mutually depend on each other's network infrastructure.<sup>81</sup>

## **Horizontal regulation**

### *Spectrum management*

Cyprus has announced that it has transposed all radio spectrum harmonisation Decisions.

Fixed Wireless Access networks and services do not yet operate in Cyprus. In order to increase competition, the DEC plans to introduce Fixed Wireless Access via an auction process. The auction process will be used to distribute the available frequencies and allow alternative operators to compete effectively with the incumbent operator. From the information the Commission received, the Cypriot authorities will consider excluding operators with SMP in the access markets from participating in the auction in an effort to maximise the benefits of infrastructure competition, and in particular to increase the uptake of broadband in Cyprus.

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<sup>80</sup> Each licensed station is responsible for installing its own broadcast network.

<sup>81</sup> Even the public broadcaster, Cyprus Broadcasting Corporation is dependent on other station's transmission facilities to provide full coverage of the Cypriot market.

### *Rights of way and facility sharing*

With regard to the rollout of fixed infrastructure, market players voiced heavy criticism of the time it takes for the required rights of way to be granted.

Operators currently need permits from local authorities (with the exception of the major road belonging to the Ministry of Public Works/Public Works Department), as the roads belong to the municipalities or the district authorities, and/or the utility companies. The procedures for obtaining permits from local authorities are not harmonised. Furthermore, most sites in rural areas are Government-owned, and thus approval for construction can be a lengthy process as applications have to be approved both by the relevant Ministry/ies to which the land belongs and by the Council of Ministers.

In view of the problems new entrants have in rolling out fixed networks, such as the refusal by the relevant authorities to grant rights of way to install facilities on, over or under public property and on roads/highways, the Commission initiated an infringement proceeding against Cyprus in July 2006.

As a result, the Cypriot authorities undertook to harmonise the granting of the necessary permits between the different competent authorities. On 31 August 2006, a Decision was taken by the Council of Ministers approving the Code of practice entitled “Code of procedures regarding the acquisition of rights of way on the road network by electronic communications providers” (“Code”). These new policy guidelines were adopted in the form of a Policy Decision of the Council of Ministers. The Code sets up time limits between the various procedures. The time for the collection and recording of comments, opinions and remarks of the various public services and the provision of the relevant authorisation from the competent authority must not exceed 6 weeks, unless there are special reasons, which must be duly justified. According to the Cypriot authorities, this means that an application for the acquisition of rights of way will be assessed within the above period, provided that it is accompanied by all the requisite documents and drawings. The Code can be fully implemented once the technical planning of the actual installation under the new regime is complete. The relevant legislation is currently being examined for any legal amendments that may be needed. However, the legislation has not yet been adopted and consequently, despite the efforts made, harmonisation of the procedure is not guaranteed.

Co-location is promoted in the case of existing roads. Underground roll-out of fixed line infrastructure on existing roads is examined on a case-by-case basis if co-location is not technically feasible.

Special space has been reserved on new roads for all operators and the cost will be shared between the interested parties.

As regards mobile networks, planning and building licences are necessary for the installation of masts/antennas. From 2002 to December 2003, no town planning licences were required and the incumbent operator installed many masts/antennas without any such licence. As a result, the incumbent operator was able to install and expand its mobile network, which now comprises 470 base station sites. These were installed between 1994 and 2004.

With the granting of the mobile licence to the second MNO both the incumbent and the second MNO, face major delays and difficulties in the roll-out of mobile network. In the current legal environment, the erection of masts and antennas requires permission from planning authorities under the relevant town and country planning regulations, together with a

building permit from the designated planning authority. Moreover, building permit practices differ between building authorities. Consequently, of the 84 applications that the incumbent had filed for building permits between September 2004 and November 2006, only 3 were granted. As for the second MNO, applications for building permits on government-owned land have been pending for more than a year and no such licence has been issued to date.

To remedy this situation, the legal framework for the erection of antennas and masts is being amended. A Decision of the Council of Ministers entitled “Policy and Procedures for the Installation and Operation of Radio-communication Stations with Transmission Capability” was adopted on 14 December 2005, thereby providing the framework for the harmonisation of granting mast and antenna roll-out in Cyprus for which town planning and building permits are required. As regards the town planning permits a Directive and an Order were published respectively on 2 June and 25 August 2006. Under this secondary legislation, the majority of masts and antennas are exempted from the obligation to submit applications for planning permits. The permits are granted by planning authorities and a decision concerning the planning permit should be issued within 6 weeks of the submission of an application. Where no answer is forthcoming within the 6-week period, the planning permit is considered not to be granted. As for building permits, the amendment of the Streets and Building Law is under way but it has still not been adopted. Under this proposed amendment, building authorities will have a fixed time limit to decide on an application and a decision should be made after assessing the structural soundness of the mast. Failure to decide on an application within the specified period is considered to mean that the building permit is granted. A Directive has already been drafted by the Ministry of the Interior for adoption by the Minister after approval of the amendment by the House of Representatives. According to the draft Directive, masts of less than 600 kg will not need a building permit. This more flexible building permit regime cannot enter into force until the amendment has been adopted.

In addition to the slow process of granting the requisite permits and licences for the installation of fixed and mobile networks, operators also have the problem of maintaining illegally built masts/antennas. Several market players underlined that, in view of the particular administrative system and the relevant legal provisions, most of the antennas/masts are considered to have been built illegally by both the incumbent and the second MNO. Following the Decision of the Supreme Court of 30 June 2006, stating that the mobile base stations of the incumbent are illegal because they were built without building permits, the incumbent operator had to remove 3 base stations following District Court decisions taken on the basis of the Supreme Court decision. The second MNO also faces repeated orders from different public authorities to remove its existing base stations for lack of the requisite permits.

The Commission is looking into the matter of rights of way in respect of both fixed and mobile networks.

## **THE CONSUMER INTEREST**

### **Universal service**

In Cyprus, the universal service provider (“USP”) was last designated on 18 March 2005 for a period of 3 years. The incumbent was designated for all components and for the whole territory. Although provided for in the legislation, the OCECPR received no request for the compensation mechanism set up for the provision of universal services.

Under currently Cypriot secondary legislation, the designated operator must have geographical coverage of at least 85% of the whole territory and population coverage of at least 70%. Following the concerns raised by the Commission in the last Implementation Report that some operators might be excluded from the outset, the Cypriot authorities submitted a draft amendment of the current legislation to the Commission. In this draft, all reference made to the population and territorial coverage obligation have been replaced by the general possibility for the OCECPR to set more stringent conditions in order to ensure that the universal service provision is available to all users with good quality and at an affordable price.

The Cypriot authorities introduced two schemes designed for end-users with low income and end-users with special social needs (disabled, deaf or blind). Subject to providing evidence that their situation allows them to benefit from the special service provision, users with low income are entitled to special discounts on PSTN connection, subscription and calls. Users with special social needs are entitled to free connection and subscription for one fixed analogue line and to one hundred minutes of free national call per month or to free subscription for one mobile connection and one PSTN connection to the internet, where they benefit from special rates for broadband access to the internet.

### **Directory services and directory enquiry services**

The Commission initiated an infringement proceeding against Cyprus in December 2005 since comprehensive directory and directory enquiry services were not available. Following the reply from the Cypriot authorities confirming that a comprehensive on-line directory and a comprehensive directory enquiry services, including fixed and mobile numbers, had been put in place, as the subscriber database of the second MNO had been made available, the Commission closed the case in June 2006.

### **Emergency services (112)**

In Cyprus emergency calls are made both to 112 and to 199, the national emergency number. Caller location information was only available for calls made from a fixed line but not for calls made from a mobile phone. In this respect, an infringement procedure was launched by the Commission in April 2006. In September 2006, the Commission closed the case after the Cypriot authorities had provided assurances that both MNOs make caller location information available to the Cypriot emergency authorities.

### **Number Portability**

Number portability was introduced in Cyprus on 12 July 2004 with 10 000 fixed and 4 860 mobile ported numbers up to October 2006.<sup>82</sup> In this context, it should be stressed that the cost of fixed number portability is much higher than the EU average (€9.32).

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<sup>82</sup> In respect of the fixed and mobile ported numbers it has to be underlined that these figures indicate the number of transactions, consequently repeated portings are included and do not reflect the currently ported number.



# LATVIA

## INTRODUCTION

Latvia's strong GDP growth in 2006 has had tangible effects on developments in the electronic communications sector. According to estimates by the regulator, the Public Utilities Commission (PUC), the overall value of the sector has grown in the past year to approximately €500 million.

From a regulatory viewpoint, competition in the mobile sector over the past year in particular has intensified with the entry of a third GSM/UMTS mobile network operator; this operation was well managed overall by the tender commission, which comprised members of the PUC, the Ministry of Transport and several other institutions. Broadband take-up has more than doubled to reach penetration levels of 9.2%. These positive developments were accompanied by increasing regulatory activity, with the PUC stepping up its efforts to complete its first round of market analyses by December 2006.

Finally, it was noted in December 2006 that the Latvian government had used external consultants to establish an independent valuation of the state's shareholdings in the incumbent and in the leading mobile operator, with a view to privatising the remaining 51% stakes in each of these firms. The Latvian government was set to decide in January 2007 whether to divest its stakes, beginning with the mobile operator.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The PUC was off to a late start with its market analysis and imposition of the regulatory obligations provided for by the Framework Directive. By the time of publication of the 11th Implementation Report none of the markets had been analysed. One of the principal regulatory developments in 2006 can thus be identified as the commencement of this process. Up to January 2007 the PUC had notified 17 of the 18 markets listed in the Recommendation.

Market players followed with concern the sometimes complex administrative interaction in the context of numbering and frequency issues between the Ministry of Transport, the PUC and the Electronic Communications Office (outside the control of the regulator). The PUC in turn is responsible for allocation on the basis of the plan, but the procedure is rendered more complex through the involvement of a special inspection unit for equipment authorisation placed outside the control of the regulator. In particular, discussions have taken place to introduce fees for allocated numbering resources of €0.17 per year/number, as well as fees for the use of spectrum resources; the proceeds (in combination perhaps with state revenues from the budget) are then intended to finance the eventual establishment of a universal service fund. The Commission will monitor these developments carefully during the coming year for compliance with the Framework.

## Organisation of the NRA

The PUC is a multi-sector regulator that has regulatory powers in energy, electronic communications, postal services and railways.

It is generally regarded as being able to attract and retain well-qualified staff. The PUC is presided over by a five-member board, appointed by the Latvian Parliament on the recommendation from the Cabinet of Ministers. These board members are appointed for a five-year term. 2006 witnessed a number of key personnel changes, including the appointment of a new chairperson (in November 2005 – a former state secretary of the ministry of finance) and a new commissioner (July 2006).

The executive arm of the PUC responsible for the electronic communications sector is the Electronic Communications and Post Department, assisted by separate legal and economic departments. They are all subordinated to the PUC board, enacting approved decisions and overseeing implementation.

At the end of 2006, the relevant department of the PUC employed 24 permanent staff.

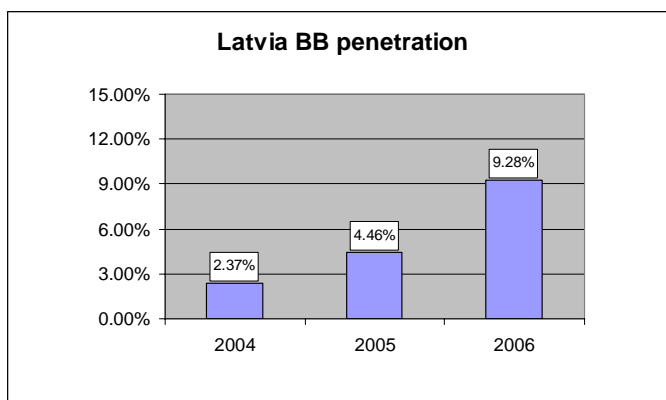
The appeals system was overall regarded as satisfactory by interested observers, and the typical timeframe in the newly established administrative court system for reaching binding decisions is put at 2-3 years. The PUC's remedy decision in markets 8-10 went through without appeal.

Observers have criticised the PUC for not making available on its website proper yearly or quarterly data on the sector, leading to insufficient levels of transparency.

## Decision-making

Since by November 2005 the PUC had not yet started the process of market analysis and imposition of regulatory obligations provided for in the Framework Directive, its attention in 2006 inevitably focused on this crucial part of its regulatory responsibilities. Up to January 2007, the PUC had notified 17 of the 18 markets listed in the Recommendation. In general, in executing these analyses (and particularly in conducting the attendant consultation phases) the work of the PUC was found to be efficient by the market players concerned. However, observers noted that the role of the Competition Council in the process was a purely formal one.

## MARKET AND REGULATORY DEVELOPMENTS

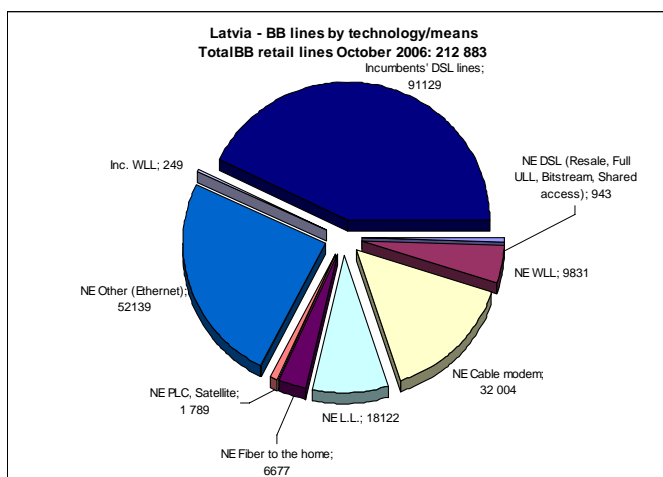


### Broadband

#### *Market situation*

The Latvian market for retail broadband access has seen another year of formidable growth, reaching a broadband penetration rate of 9.28%. This is more than twice the 2005 level (4.46% in October 2005) and more than four times the 2004 level (2.37%).

The fixed incumbent has an overall market share of 53.49%; its share of xDSL lines remains close to 100%. The picture of thriving infrastructure-based competition that emerges from these figures needs some qualification. First, while it is true that cable, wireless local loops, Ethernet access and even non-incumbent FTTH solutions (for instance, by the state-owned monopoly power utility) all vie for the end customer, this competition is largely confined to the capital region of Riga where the incumbent's share has dropped significantly. However, in rural regions, typically the only non-wireless broadband access solution remains the incumbent's DSL products. Unbundled local loops, bitstream and resale products account together for no more than 0.32% of the entire alternative operator's market share. It remains to be seen whether this share will finally increase after the PUC's notification of markets 11 and 12 in November 2006. Second, the incumbent's market share, even in Riga, instead of coming under further pressure, seems to have consolidated over the past year.



The sector's dynamic growth and the still dominant position of the incumbent for DSL is borne out by the incumbent's figures – 100 000 subscribers by year end (of which 45 000 were in Riga, and 55 000 in the countryside), up from last year's 69 000. Its typical retail offer is approximately €24 for a 5 Mbit/s product. IPTV offerings with even higher bandwidth by the incumbent are expected in early 2007, mainly in the Riga region, where cable and, interestingly, Ethernet access (mainly for business customers) both have a strong presence.

### *Regulatory issues*

In November 2006, the PUC notified markets 11 and 12 to the Commission's Article 7 task force, finding dominance by the incumbent player and imposing cost-based access obligations.

As up to this notification the number of unbundled lines and bitstream products was negligible, implementation of these remedies will clearly be a priority for the regulator in the coming year.

### **Mobile markets**

#### *Market situation*

In the Latvian mobile markets 2006 was another year of very strong growth and significant structural change. Overall, penetration levels in this most important segment of the Latvian electronic communications market have now increased to approximately 90-95% of the population, compared to 63% in 2004 and 78% in 2005.

A key driver of this was the entry in 2006 of a third mobile network operator. It is estimated to have attracted more than 175 000 customers in its first year of existence (of a total potential market of approximately 2.3 million). This has brought three major changes.

First, according to market player's own estimates, prices for mobile services have come down by 15-20% in the reference period. If read in conjunction with higher penetration rates and the increased total volume of minutes used, this figure points to a dramatic gain in consumer welfare resulting from this new entrant.

Second, a thriving MVNO business has developed on two of the three networks in Latvia. This is a significant development - particularly as MVNO entry has been as a result of commercial arrangements rather than regulatory intervention. The new entrant alone now has agreements with six MVNOs, catering for specific niches of the market. It is expected that the overall figure will increase in 2007.

Third, as foreseen by the Latvian authorities, breaking up the former duopoly has resulted in more investment in network infrastructure and new services. This is true in particular of the new technology of HSDPA, which has now been rolled out by two networks in seven major cities in Latvia. HSDPA retail products (currently mostly aimed at the business customer segment) offer speeds of up to 3.6 Mbit/s and are currently priced at €35 to €65. The first mobile TV offerings were also on the market at the end of 2006.

The current market structure - in terms of revenues – is made up of a 64.4% market share for the largest player, a 35.5% market share for the leading competitor, and a 0.6% market share for the new entrant (figures for the first half 2006).

All of the market developments outlined above are positive, even though there was some criticism that, at least from the point of view of retail prices, the Latvian mobile market still has some way to go before it reaches the even more competitive levels of some of its neighbours in the Baltic region. In the coming years, as the market matures and consolidation becomes an issue, the Latvian authorities – and perhaps the Competition Council in particular – will face the important task of ensuring that the gains resulting from the present competitive multitude of networks are permanent.

### *Regulatory issues*

From a regulatory point of view, the welcome entry of the third mobile network provider was largely well managed by the authorities and should be judged a success. It put an end to the mobile duopoly that has characterised the Latvian mobile market for a long time.

In 2006, the transition to a new national 8-digit numbering plan for non-geographic numbers was completed, preventing numbering ranges from becoming an artificial bottleneck for the growing demand for mobile services in particular. The first numbers were allocated to mobile operators in May 2006.

Termination rates for the two leading operators are set at €0.089. Non-supervised commercial negotiations between the operators have resulted in a concessionary MTR of 20% above this level for the new entrant. Latvia for the moment has thus an asymmetric MTR structure, which - considering the relative scale of the different mobile players - should be able to nurture competition.

As regards market 15, which was notified to the Commission in November 2006, the PUC has elected to refrain from imposing national roaming obligations on the two leading operators on the grounds that the new entrant was obliged by its licence conditions to effect certain levels of network investment. The PUC should carefully monitor whether this arrangement is conducive to sustainable long-term competition.

## **Fixed**

### *Market situation*

The fixed voice telephony sector remains the most uncompetitive – though not the largest - segment of the Latvian electronic communications market. Approximately half the incumbent's revenues fall into this segment. This amounts to more than €100 million revenues and comprises almost the entire market.

Since the PUC-mandated carrier pre-selection for local calls in September 2005, 111 players providing local fixed voice services have entered the market. Similarly, at the end of 2006, according to the PUC, there were 124 active players providing international fixed voice services, approximately 30% share of this market segment. Compared to 2005, there has thus been no movement.

### *Regulatory issues*

As a transitional measure the PUC imposed CPS for local calls in September 2005. Implementation of this measure shows new entry into this market. However, an accurate assessment of most recent developments must await the analysis and notification of markets 1-6 of the Recommendation scheduled for late December 2006. It seems clear that the fixed voice telephony market – though poised for technological change at least in big urban centres – has to become one of the PUC's regulatory focus points if it is to be serious about letting all consumers benefit from liberalisation of the sector.

## **Broadcasting**

The broadcasting sector is dominated by cable companies. However, the fixed incumbent is introducing IPTV in early 2007.

The Latvian government has not yet decided upon a detailed timetable for the transition to digital television.

## **Horizontal regulation**

### *Spectrum management*

Responsibilities for the allocation of spectrum are shared in a complex manner between the Ministry of Transport, the PUC, and a separate electronic communications office, which is responsible for technical issues of implementation.

In the reference period, the PUC organised a successful beauty contest for the frequency ranges 450 and 800 MHz in December 2005, for 40.5 – 43.5 GHz in June 2006 (for digital television) and for 387/397 MHz in October 2006 (for security and defence purposes).

Furthermore, in November 2006 the Ministry of Transport drafted amendments to the Latvian regulation on spectrum (national frequency plan), which incorporate Decisions 2005/928/EC, 2005/513/EC, 2005/50/EC and 2004/545/EC.

Some market players reported that the Latvian authorities planned to introduce frequency fees to finance (perhaps in combination with state revenues from the budget) a future universal

service fund. The Commission will monitor carefully whether such a policy is in compliance with the Framework.

The PUC conducted a beauty contest for the ccTLD.lv domain administration in June 2006, which was won by the Institute for Mathematics and Informatics of the University of Latvia. Security requirements and an obligation to submit annual accounts were imposed as part of the award decision by the PUC.

## **THE CONSUMER INTEREST**

### **Universal Service**

On 22 November 2006, the PUC proposed a non-binding internal administrative measure specifying guidelines on universal service obligations. The measure contains a list of activities that fall under the scope of universal service, the obligations of universal service imposed by the PUC, the geographical territory and the end-users covered by the universal service.

While the clarifications contained in this measure are clearly to be welcomed, since transposition of the framework directive in November 2004 no proper designation process of the universal service provider has been enacted or indeed followed up. In Latvia the basic set of services within the scope of universal service is not provided under normal commercial conditions at an affordable price (e.g. the 3800 public payphones operated by the incumbent in 2006). Thus, the PUC has to designate an undertaking to provide these services and, in so doing, it must ensure that the designation process is efficient, objective, transparent and non-discriminatory, and furthermore that no undertaking is excluded as such from the process. Rather than observing these rules, as contained in the applicable law, the PUC in the past simply designated the incumbent operator as the universal service provider on an annual basis.

Furthermore, the designated undertaking is to be compensated for the net costs incurred in providing universal services, and to date there is no such agreed compensatory mechanism in place in Latvia. While the Ministry of Transport has proposed a legislative act creating a universal service fund financed by the industry to compensate the designated undertaking, this act has not yet been adopted by the Latvian cabinet of ministers. Some observers have noted that the reason for the legislator's reluctance might be the intention to create a cross-sectoral fund encompassing all industries regulated by the PUC – clearly a project that the Commission will monitor as to compliance with the regulatory framework.

### **Directory services and directory enquiry services**

Contrary to Articles 5 and 25 of the Universal Service Directive, there was no comprehensive directory or a comprehensive directory enquiry service comprising all subscribers, fixed and mobile, available in Latvia until 2006.

In February 2006, the Latvian authorities had drafted amendments to the Electronic Communications Law imposing further obligations on service providers with regard to data transmission to enable this service.

In October 2006, the Latvian authorities stated, first, that a comprehensive directory enquiry service was now available, and, second, that the amendments to the ECL had now been implemented. This has been verified by the Commission with the fixed and mobile operators concerned, and as a result the originally pending infringement proceeding has been closed.

## **Emergency services (112)**

The Latvian authorities have pointed out that it was planned to implement identification of caller location in both the fixed and the mobile sector in 2007 at the latest. However, they also made this contingent on it being 'economically viable'. In the Commission's view, this is not acceptable because the applicable EC law does not provide for national exceptions based on this criterion. The Commission has therefore opened infringement proceedings and has sent a reasoned opinion to the Latvian authorities.

## **Number portability**

Under the Universal Service Directive, number portability became available in Latvia in December 2005. In the mobile and fixed sectors, a total of 35 000 numbers have since been ported, approximately 26 000 numbers in the mobile sector and 9 000 numbers in the fixed sector. Take-up has therefore been lacklustre. The Commission will continue to monitor whether the level of charges for porting numbers is justified (at present a one-off fee of approximately €8.5 for geographic numbers); whether there are any additional and possibly unjustified variable fees (as was argued by one market player); whether the obligations are non-discriminatory to all operators and to all kinds of subscribers (post-paid and pre-paid - the Latvian Electronic Communications Law unduly seems to exclude pre-paid customers from the definition of subscribers); and, finally, whether the time it takes to port a number is within a adequate limits.

# LITHUANIA

## INTRODUCTION

In 2006, Lithuanian mobile operators and service providers continued to compete intensively against each other. All mobile operators have started or are about to start commercial third-generation mobile service offerings, including mobile TV. Broadband penetration increased at a pace slightly slower than expected given the competing platforms. Fixed markets are still dominated by the fixed incumbent to a very large extent.

On the regulatory side, the completion of virtually all market analyses, and the lower number of decisions suspended while under appeal, have created the basis for rapid implementation of the remedies imposed. Issues of concern include difficult relations between alternative operators (including cable operators) and the fixed incumbent, and the absence of an effective 112 caller location service. Effective structural separation between regulatory functions and functions associated with the control of operators would also appear to merit more regulatory attention.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The national regulatory authority RRT could be categorised as a comparatively “light touch” regulator that believes in the market forces of infrastructure competition. Arguably, this approach has worked in the otherwise very competitive mobile markets and partly in the broadband markets, but has been less effective in the fixed markets, where the fixed incumbent has largely succeeded in escaping competition. It is yet to be seen what changes will be brought by the implementation of remedies imposed in the course of market analyses.

### Organisation of the NRA

The organisation of RRT’s decision-making is generally attributed to its director. However, a predominantly advisory body called the Council apparently enjoys the power of veto over a range of RRT decisions, including RRT’s budget, rules on administrative charges, market analysis regulations, general authorisation regulations, rules on publication of information, public consultation regulations, and dispute settlement regulations. The Council is composed of seven representatives of various institutions, including RRT itself and the Ministry of Communications (the Ministry). The Ministry also performs functions associated with the control of operators, namely the analogue broadcasting transmission incumbent. It appears that the same person represents the Ministry both in the RRT Council and on the board of that operator. The Commission services are looking into this matter.

The positive trend noted by RRT is that, in 2006, the Lithuanian courts refrained from the practice of automatically suspending RRT’s market analysis decisions. The courts now put the burden of proof for the need for suspensions of this kind on operators.



## Decision-making

RRT has notified all the markets identified in the Recommendation, with the exception of the market for international roaming. Remedies resulting from the market analyses and SMP (significant market power) findings are, as a rule, in their first stages of implementation.

RRT noted that alternative operators tend not to participate actively in public consultation procedures. This might reflect the fact that the human resources of these operators are too limited for them to pay adequate attention to regulatory issues.

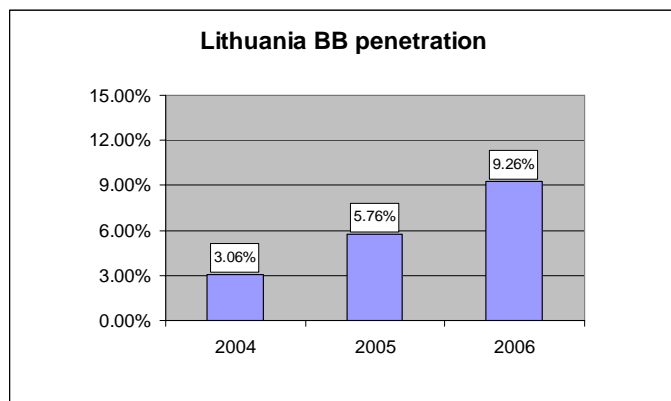
## MARKET AND REGULATORY DEVELOPMENTS

An alternative operator has announced that starting from March 2007 it will provide converged mobile/fixed IP services. The fixed incumbent has already introduced a VoIP service. Two of the three mobile operators are providing mobile TV. Some cable operators have introduced or are in the process of introducing triple play services.

The Lithuanian Government, subsidised by the European Structural Funds, is deploying a 3000km fibre backbone, designed to connect residential and non-residential users (i.e. schools, hospitals, local administration) in rural areas. Operation of the backbone will be entrusted to a private company selected by tender. The second phase of the project (RAIN II), aimed at developing access to the backbone, is under study. Some criticism has been expressed by local authorities that RAIN has not yet delivered tangible benefits.

## Broadband

### *Market situation*

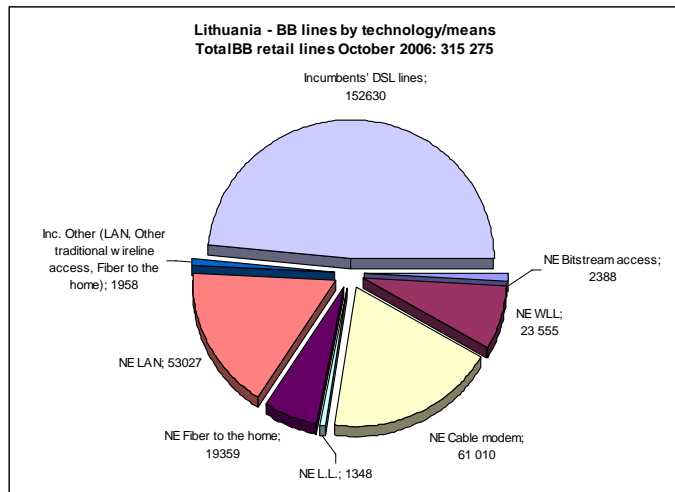


In October 2006, broadband penetration had reached approximately 9.3% (compared to approximately 5.8% in October 2005). Broadband services are provided through a number of competing types of infrastructure, with local area networks and cable playing important roles, but intra-DSL (digital subscriber lines) competition is virtually non-existent. Overall, competition between technology

platforms has not yet resulted in a wider retail uptake of broadband (Lithuania is one of the better performing new Member States countries, but lags considerably behind the EU-25 average of 15.7%). The broadband market share of the fixed incumbent was constantly on the increase over the period 2004-2006. RRT believes that wireless technologies will substantially enhance broadband penetration and is taking appropriate regulatory steps (a tender is planned for WiMax rights of use).

*Regulatory issues (including market analyses and remedies)*

As a result of the analyses of the wholesale broadband access and LLU (local loop unbundling) markets, updated reference offers were issued by the fixed incumbent in August and October 2006 respectively. The improved bitstream offer should allow the alternative internet Service Providers to provide differentiated retail broadband services (the old one was rather a retail business offer comparable to resale). Twelve bitstream level contracts have been signed so far.



In 2006, the first fully unbundled local loops were brought into use in Lithuania. However, there has still not been any wider uptake by alternative operators. Due to various connection and service fees, use of LLU would make sense at national level, but for the time being operators would be interested in LLU in selected areas only. LLU prices have not changed compared to 2005. Limited attractiveness of LLU is also due to limited penetration of the fixed incumbent's network (approximately 23 lines per 100 inhabitants in June 2006 according to the data provided by RRT). RRT explained that massive investment would be necessary for LLU, and that cable and LANs (local area networks) create competition in urban areas.

In 2006, a fine close to €1 million was imposed on the fixed incumbent by the Lithuanian Competition Authority for abuse of its dominant position in broadband markets, which took the form of a price squeeze. The fixed incumbent was also obliged to change the conditions of provision of the ADSL (asymmetric digital subscriber lines) access service by eliminating the scope for unfair prices.

**Mobile markets**

*Market situation*

Mobile market is very well developed in Lithuania with notably a SIM card penetration well above 100% (133% in October of 2006) and accounting for nearly half of the revenues generated by electronic communications services.

*Regulatory issues (including market analyses and remedies)*

The mobile access market was found to be effectively competitive by RRT. Following unsuccessful appeals, RRT's decisions concerning the mobile call termination market are final and not contestable. Implementation of mobile termination remedies seems to be at an initial stage, as a tender for methodology has recently been announced by RRT. In the meantime, transitional measures are in place, under which each operator will be required not to apply (price) conditions for the provision of voice call termination services which are worse than those applied on 30 September 2004.

## Fixed

### *Market situation*

In Lithuania, competition on fixed markets is much less intense and dynamic than on mobile markets. This is the result of several factors, including the proliferation of mobile-only users, the fragmentation of the cable industry and the possible restraint of RRT against the fixed incumbent so far. According to data provided by RRT, the market share of alternative operators by revenues decreased from approximately 6.26% in the second quarter of 2005 to approximately 4.15% in the second quarter of 2006. This is partly due to the decision of a significant alternative market player to withdraw from fixed markets.

### *Regulatory issues (including market analyses and remedies)*

As a result of its analysis of the fixed retail access markets, RRT has imposed WLR (wholesale line rental) obligations on the fixed incumbent.

According to alternative operators, the fixed incumbent acts in a discriminatory way by charging much higher retail tariffs for calls to alternative networks than for the on-net calls (12 Lithuanian cents for on-net calls and 45 Lithuanian cents for calls to alternative networks at peak time). However, the fixed incumbent claims that the difference results from the application of the principle of cost orientation and was looked at by RRT (which slightly reduced the difference). Generally, new interconnection prices would come into force as of 1 January 2007. Most alternative operators interconnect at national points, indicating that local interconnection is not cost-effective (e.g. 6 interconnection points for the Vilnius region). Charges for call termination on the fixed incumbent's network are remarkably high compared to the EU average and have not decreased since 2005 (€0.026 local level, €0.035 national level).

A formal complaint against the fixed incumbent was submitted to RRT by an alternative operator due to the impossibility of calling its network from the fixed incumbent's payphones. In July 2006 (after more than a year), the dispute was resolved in favour of the alternative operator, although the delay is not encouraging alternative operators to initiate new disputes. According to the fixed incumbent, the problem resulted from the use of non-geographic numbers by the alternative operator (payphones needed upgrading). The fixed incumbent argued that payphones are not covered by the interconnection agreement with the alternative operator, but RRT decided that the possibility of calling alternative networks from the fixed incumbent's payphones is part of the universal service.

According to the alternative operators, the fixed incumbent is pursuing a targeted win-back campaign by offering their clients "almost wholesale" prices. However, this type of price squeeze is difficult to prove. As a result, alternative operators are "pushed" into the IP environment. Alternative operators are not helped by the indefinite public procurement contracts for electronic communication services between state institutions and the fixed incumbent.

## **Broadcasting**

### *Market situation*

Broadcasting content is delivered to end-users on a number of different types of infrastructures: analogue and digital terrestrial networks, cable networks, satellites, the fixed incumbent's ADSL network. In terms of penetration, terrestrial networks still dominate the market (73% of households<sup>83</sup>), with cable (23% of households) and satellite (4% of households) networks coming next. Analogue broadcasting still prevails over digital broadcasting. The analogue switch-off process will start as of 2012.

### *Regulatory issues (including market analyses and remedies)*

As a result of the analysis of the broadcasting transmission services market the analogue transmission incumbent was designated as SMP operator. Remedies of access, transparency, non-discrimination, price control, cost accounting and accounting separation were imposed by RRT.

Broadcasters are "tied" by content licences to their transmission service providers (the analogue broadcasting transmission incumbent in the case of analogue broadcasting; the analogue broadcasting transmission incumbent or the fixed incumbent in the case of digital broadcasting). This could be seen as an unnecessary restriction of the freedom of terrestrial broadcasters to change provider, which symmetrically may restrict the freedom of the transmission service providers to compete with each other for customers and may lead in particular to dissuading potential new entrants from challenging the position of existing providers. There are ongoing discussions between the Lithuanian authorities concerning changes to these licensing rules.

Lithuanian authorities and operators apparently have certain problems with the standard adopted for digital TV – mpeg 4. In particular, consumer equipment took some time to arrive on the Lithuanian market. According to the consumer representatives, a viable alternative could have been temporary use of mpeg 2 combined with relatively quick transition to HDTV (high definition TV).

## **Horizontal regulation**

### *Spectrum management*

The radio frequencies and their respective uses regulated by the Commission's radio spectrum harmonisation decisions are reflected in the List of Radio Frequencies (Channels) That May Be Used Without an Individual Authorisation (version of April 2006), approved by RRT.

RRT has already issued two WLL "pre-WiMax" rights of use for radio frequencies. However, according to alternative operators, these platforms are not yet a viable alternative to the fixed incumbent's PSTN (public switched telephone network), e.g. cable operators cannot use them. A tender is planned for WiMax rights of use: two national and one regional, should frequencies remain available after the granting of national rights. 3G mobile operators are likely to be excluded from the tender (in order to promote infrastructure competition, according to RRT). The fixed incumbent is interested in WiMax and other new technologies.

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<sup>83</sup> According to the report by Dataxis "Digital television data: EU market for digital television"

### *Rights of way and facility sharing*

According to the alternative operators, the fixed incumbent artificially creates barriers for access to its ducts, while the policy and regulations adopted by the state institutions are not supportive enough. They also say that the fixed incumbent's ducts laid in new construction sites are simply too narrow. On the other hand, the prices of the fixed incumbent's ducts seem to be quite reasonable. The fixed incumbent claimed that it abided by the rules approved by RRT (e.g. allowing projects scheduled over the coming two years to be taken into account). RRT noted that the issue is partly regulated by the framework agreement between the fixed incumbent and the association of cable operators. It also regretted that alternative operators are not raising issues through formal dispute settlement channels. Finally, it is to be noted that RRT is assuming a new regulatory role concerning construction planning in the area of electronic communications.

## **THE CONSUMER INTEREST**

### **Tariff transparency**

Intense competition between mobile operators and service providers has resulted in a proliferation of various tariff plans. Although clearly beneficial, this trend also has a negative side-effect, as the consumer representatives complain about the lack of transparency in mobile tariffs.

### **Universal service**

In 2006, the Lithuanian Government adopted new Universal Service Regulations. In particular, the mechanism for designation of the universal service provider has been improved by providing that at least once per year RRT will announce an official call for expressions of interest to provide the universal service or any of its constituent components.

### **Emergency services (112)**

In 2006, an infringement case was opened against Lithuania on the grounds that, contrary to the requirements of Article 26 of the Universal Service Directive, caller location information was not available to emergency authorities in Lithuania for calls made from mobile phones. At the start of December 2006, a cooperation agreement concerning the future introduction of the 112 caller location pull service was signed between the Joint Emergency Centre and mobile operators.

### **Number portability**

At the end of 2005, an infringement case was opened against Lithuania on the grounds that, contrary to the requirements of Article 30 of the Universal Service Directive, the temporary direct call forwarding solution that was used as a substitute for fully operational number portability in Lithuania did not ensure that SMS (short message service) and MMS (multimedia message service) messages reach the ported mobile number of a subscriber. Following the introduction of the fully operational mobile number portability in February 2006, the case was closed.

Operators complain about the expensive number portability solution (1 Lithuanian litas per allocated number) put in place in Lithuania. RRT partly responded by decreasing administrative charges for numbers. However, number portability is free of charge to end-

users and is delivering tangible results: being fully operational from February 2006, mobile number portability allowed more than 100 000 numbers to be ported in 2006, compared to 55 573 in 2005. Fixed number portability represents only approximately 4 400 ports.

### **Out-of-court dispute resolution**

In 2006, RRT created the possibility for end-users to submit complaints and other documents concerning the provision of electronic communication services on-line. Some operators are concerned about RRT's dual role as arbiter in disputes between operators and end-users (under Lithuanian law operators must participate in RRT dispute resolution procedures initiated by end-users) and at the same time as an institution responsible for consumer protection.

# LUXEMBOURG

## INTRODUCTION

Luxembourg has improved its broadband penetration rate, which is now above the EU average. The mobile market continues to grow and enjoys a very high penetration rate. A third mobile operator recently entered the market, while a fourth mobile operator was granted an authorisation. Due to obstacles such as the absence of wholesale line rental, the outlook for the fixed market is less positive.

Partly due to late transposition, the national regulatory authority was lagging behind in carrying out market reviews, thereby generating some legal uncertainty. The situation substantially improved however in late 2006. In the meantime, a state-owned company has been established to run a fibre network designed to improve Luxembourg's internet connectivity.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Overall, there were certain changes in the regulatory environment in 2006, in particular the completion of the majority of the market analyses by the end of 2006. There is an ongoing problem with regard to the accounting system of the incumbent. A letter of formal notice was sent in the autumn of 2006 and the Commission services are assessing the reply of the Luxembourg authorities.

### Organisation of the NRA

The Institut Luxembourgeois de Régulation (ILR) (the NRA) is generally considered independent, but questions have been raised on the level of its resources to carry out resources inter alia the market reviews.

Many alternative operators also maintain that the cooperation between the Competition Authorities and the NRA does not work well, and that the allocation of tasks is not always clear. This view is not shared by the NRA.

### Decision-making

Due to late transposition of the regulatory framework, the national regulatory authority has been late in completing the market reviews. In November 2006, the vast majority of market reviews had not been completed. A Reasoned Opinion was sent in the autumn of 2006, when Luxembourg had only notified three markets out of eighteen. However, significant progress has been made since then, and the national regulatory authority had notified most market reviews by the end of 2006, except for the market for broadcasting transmission services and the market for wholesale international roaming. The lack of completed market reviews has created some uncertainty as to the regulatory framework under which operators will operate (e.g. what remedies will be applied to what operators). In the markets notified so far, the NRA tends to impose a full range of remedies.

The consultation process seems to work well. However, some alternative operators consider that there is not enough transparency with regard to the consultation process for, *inter alia*, market reviews, whereas the NRA points out that alternative operators are sometimes late in replying to ongoing consultations. This has resulted in the NRA occasionally having to extend the deadlines for replying.

**MARKET AND REGULATORY DEVELOPMENTS**

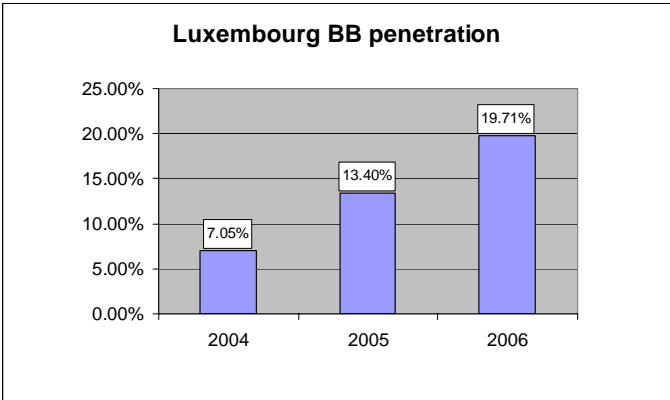
An important development in Luxembourg is the creation of LUXConnect, a state-owned operator which is expected to provide dark fibre to operators. According to the government, the objective is to improve long-term, very high-speed internet connectivity, and to connect Luxembourg to Brussels, Paris, Strasbourg, Frankfurt and London. LUXConnect would provide dark fibre to other operators on non-discriminatory terms. The government considers that the private sector either cannot provide sufficiently high-speed infrastructure, and/or does not provide it to other operators on non-discriminatory terms.

Operators consider that the creation of another state-subsidised operator is unnecessary duplication of existing broadband infrastructure or of infrastructure that easily could be upgraded to sufficient high-speed. Competition may be skewed in that the state-subsidised operator could offer more attractive terms, on the strength of having financial support, or could have preferential treatment regarding rights of way.

An additional matter of concern is the fact that the President of LUXConnect, who is responsible for controlling the state-ownership of the operator, also has duties in the Ministry responsible for drafting electronic communications legislation (even if the President will not be responsible for the day-to-day running of the company). Similar concerns about separation of ownership and regulatory functions arise regarding the presence on the Board of the incumbent of a person who at the same time is a senior member of the Ministry responsible for drafting electronic communications legislation. The Commission services are looking into these matters.

**Broadband**

*Market situation*

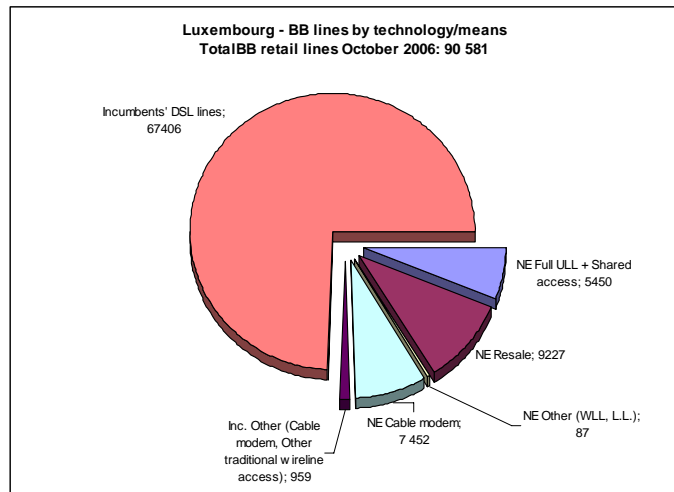


Luxembourg has significantly improved in terms of broadband penetration from a poor position four years ago to a situation where it is now, at 19.7 % as of October 2006, above the old Member States average of 17.4 % for the first time (and above the EU-25 average of 15.7 %). However, the incumbent continues to hold a very high market share in the broadband market (72.25 %).



## Regulatory issues

The majority of broadband lines in Luxembourg are currently provided by means of the incumbent's DSL lines (67 406 lines, which is around 75 % of broadband lines). There is no genuine bitstream access available in Luxembourg (although a resale product of the same name exists), and the incumbent does not have a comprehensive ATM network, meaning that any future bitstream offer seems unlikely.



Furthermore, there is no wholesale offer for ADSL by the incumbent (although there is a resale product of the same name). This situation has led some operators to offer products based on full local loop unbundling (LLU), but no alternative operator has a substantial market share so far. Alternative operators find it difficult to compete with the incumbent, due, among other things, to the lack of a service level agreement for LLU. Operators also continue to complain of a margin squeeze. Prices for LLU are higher in Luxembourg than the EU average, both for fully unbundled lines and shared access. The total monthly average cost per fully unbundled line in Luxembourg is 13.4 euros (compared to the EU average of 11.6 euros), and the total monthly average cost per shared access is 6.9 euros (compared to the EU average of 4.4 euros). As a result, very few operators are requesting shared access from the incumbent.

Finally, there are issues regarding the bundled package offered by the incumbent where ADSL, fixed and mobile voice are bundled in one package, with reductions only available to those who avail themselves of the bundled package. Alternative operators find it difficult to offer the same or similar bundled packages due to the lack of wholesale offers for fixed and ADSL by the incumbent. (As regards fixed voice, there is no wholesale line rental either.) According to the alternative operators, the bundled package has already had a negative impact on their market shares.

## Mobile markets

### Market situation

The mobile market continues to grow and the penetration rate is the highest in Europe (171%). This is mainly attributed to transnational commuters who have a Luxembourg SIM card. A third mobile operator recently entered the Luxembourg market and intends to finalise its network by the end of 2006. A fourth mobile operator was recently granted a licence, but has not yet started operations due to a pending court case.

### *Regulatory issues*

Compared to the fixed market, there is greater competition in the mobile market, and mobile number portability has been a success. However, the third generation network roll-out has been slightly delayed, partly due to the procedures for obtaining planning permissions for mobile masts and antennas.

## **Fixed**

### *Market situation*

The government owns 100% of the incumbent, which holds a strong market share in the fixed market. Its market share for all fixed calls (including calls to the internet) is 78.97 %, by call minutes. For local calls the situation is similar, where the incumbent's market share for local calls is 85.09% (by call minutes) and 77.86% for all local calls, including calls to the internet (by call minutes). Its position on the market for international calls is slightly less strong: 72.06%, by call minutes. There are only a handful of operators in the fixed market, and the incumbent together with one other operator holds 97.25 % of all fixed calls, including calls to the internet.

### *Regulatory issues*

There appear to be a number of factors in the Luxembourg fixed market that contribute to lessening the competition. The first factor is the lack of a wholesale line rental offer by the incumbent, which means among other things that alternative operators cannot offer single billing. The imposition of wholesale line rental was proposed by ILR at the end of 2006. Secondly, carrier pre-selection (CPS) procedures are long and involve several steps for a customer to be able to change operator, meaning that many customers refrain from changing operators. Thirdly, there has been little take-up of fixed number portability, as opposed to mobile number portability. Finally, operators continue to have concerns about margin squeezes for leased lines and non-transparent volume discounts offered by the incumbent, which are difficult to match by the alternative operators.

## **Broadcasting**

### *Market situation*

There are two cable network operators in Luxembourg, one of which is owned by the incumbent. According to a report prepared for the Commission,<sup>84</sup> the household penetration of the different television platforms (analogue and digital) in Luxembourg was as follows at the end of Q3 2005: 14.3 % for terrestrial, 22.9 % for satellite, 62.9 % for cable (and 0.0% for IPTV). Digital switch-over is currently ongoing; 1 analogue channel in the VHF band has been switched off and 2 analogue channels in the UHF band were expected to be switched off by the end of 2006. Switchover should be completed by 2010, even though take-up of digital TV is currently limited.

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<sup>84</sup> Datisis Report on the EU Market for Digital Television 2006.

### *Regulatory issues*

There was originally a lack of clarity as to who would be responsible for the review of the broadcasting market, although it has since become clear that it is the responsibility of the ILR, which expects to carry out the market review in the course of 2007, as one of the last markets to be analysed.

### **Horizontal regulation**

#### *Spectrum management*

The National Frequency Plan, which takes the form of a Règlement Grand-Ducal (i.e. secondary legislation), is in the process of being changed in order, *inter alia*, to fully implement the various Radio Spectrum Decisions, including the most recent ones.

#### *Administrative charges*

Some operators have concerns about high administrative charges. These charges involve a fixed fee and a fee based on percentage of turnover. Some operators claim that the latter percentage becomes high due to the fact that, firstly, the fee is based on the total turnover, and, secondly, that the turnover often involves resale activities, which increases the total turnover. However, detailed information from the Luxembourg authorities show that the way of calculating the fees are transparent (e.g. published on the internet), and are based only on the turnover generated from end customers.

#### *Rights of way and facility sharing*

A Règlement Grand-Ducal entered into force in January 2006, which sets out the procedures for applying for such permissions, and imposes legal time limits for each step of the three-step procedure. However, the three-month time limits imposed under the law do not seem to be observed in practice, and the procedure therefore would be long. Furthermore, the strict security and health rules imposed would make it difficult to carry out facility-sharing and co-location. This seems to have delayed the development of third generation mobile networks in Luxembourg.

Another concern is that it is difficult to be granted rights of way in specific cases, for example from railway authorities, motorway authorities, or indeed certain municipal authorities. There is a particular problem in one municipality, where the municipality runs its own cable network. The Commission services are looking into the matter.

## **THE CONSUMER INTEREST**

### **Tariff transparency**

Concerns have been raised about the lack of transparency for tariffs within the incumbent's bundled package. Furthermore, the incumbent has initiated legal proceedings against one of the alternative operators, claiming that the publicity for its bundled package is misleading.

### **Universal service**

There is no formal designation of universal service provider in Luxembourg, even though the incumbent provides universal service on an informal basis.

### **Emergency services (112)**

There was previously a problem with regard to the provision of caller location information for mobile for calls to 112. However, this service has been available since the summer of 2006, and the infringement proceeding was subsequently closed.

### **Number portability**

Mobile number portability has been successful, and has contributed to increase customers' choice. In contrast, there has been fairly limited take-up of fixed number portability (with only the 3671 number ported in August 2006).

### **Must-carry**

There are currently no must-carry obligations imposed in Luxembourg.

# HUNGARY

## INTRODUCTION

The growing number of fully unbundled local loops and the appearance of new services such as IPTV, mobile TV/Video, 2in1 fixed-mobile or mobile payment and naked DSL-related services were notable developments in the Hungarian market in 2006. Despite high mobile and rapidly growing internet penetration rates, there is relatively low broadband penetration.

Despite positive progress in some areas of the market, the presence of a large number of alternative operators and considerable activity by the National Communications Authority of Hungary (the “NCAH”), the main incumbent has been able to retain its dominance in certain segments of the market, and the division of the fixed-line market into five local telecommunications operators (the “LTOs”) has resulted in regional asymmetry.

The principal regulatory progresses are linked to the results of the first round of the market analysis. The reduction in fixed-line interconnection fees, wholesale broadband service prices, mobile termination rates, the monthly rental fee for local loop unbundling and the related one-off charges should be emphasised. The second phase of the market analysis started in 2006 bears witness to the slowly growing maturity of the market. The acquisition of the second LTO by the owner of an LTO and the leading alternative operator is a further major step as it aims to underpin its market position vis-à-vis the main incumbent.

## REGULATORY ENVIRONMENT

### Main regulatory developments

In 2006 some improvements in the Hungarian regulatory approach were realized by reinforcing the executive power of the NCAH. The NCAH is also proving to be more willing to impose more significant fines on operators in an effort to enforce its decisions and seems to be asserting its position more in matters of regulatory problems. By contrast, transfer of the tasks of the Ministry of Informatics and Communications, which ceased to exist, to the Ministry of Economy and Transport (the “Ministry”),<sup>85</sup> resulted in a significant reduction of staff, and its final structure was put in place only after more than seven months. Ministerial resources now seem to be insufficient to carry out the Ministry’s legally defined objectives.

### Organisation of the NRA

The regulatory tasks are divided between the NCAH and the Ministry. Despite the fact that all Hungarian e-communications service providers are private companies, the Hungarian State holds a ‘golden share’ in the main incumbent. The Ministry exercises ownership rights in respect of that golden share, which raises doubts as to its conformity with the requirements of independence stipulated by the Framework Directive. The Commission had initiated an infringement proceeding against the Hungarian regime of golden shares and a new draft bill was submitted to the Hungarian Parliament on 20 October 2006, in order to abolish the special rights of the State.

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<sup>85</sup> By Act LV of 2006 and Government Decision 163/2006 (VII.28)

In general, electronic communications operators are concerned that the NCAH delivers its decisions in the course of dispute resolutions very slowly. In 2006, in 3 dispute resolutions in one case the NCAH did not deliver its decision within the time limit set by the law (45 days, which can be extended once by 15 days).

At the same time, market players appreciate the fact that the NCAH is imposing increasingly significant fines in order to enforce its decisions.

The decisions of the NCAH appear to be systematically challenged before the appeals court. However, the number of appeals is on the decrease according to the NCAH. This market behaviour has the obvious effect of considerably slowing down the final decision-making process and reducing legal security and predictability in the market. Operators also underline the fact that Hungarian courts are overburdened and a final decision delivered by a court of second instance can take several years.

### **Decision-making**

In 2006, the major regulatory task in Hungary was to finish the first round, to implement the results of the first round and to begin the second round of the market analysis.

Despite the fact that the NCAH has almost completed its analysis, draft measures relating to the wholesale market for broadcasting transmission services are still to be notified to the Commission.

The NCAH found that there was effective competition in the wholesale markets for transit, trunk segments of leased lines and mobile access. All other markets were found to be non-competitive. The NCAH has taken final measures in all of the non-competitive markets notified in the first round.

At the same time, the NCAH has already started the second round of market analyses, notifying the wholesale mobile call termination market for the second time.

In general, market players found the work of the NCAH to be efficient. However, operators raised concern in respect of the wholesale mobile termination rates based on a glide-path producing symmetry in the MTRs by 2009.

Some e-communications operators still regret the fact that wholesale line rental and at least the obligation to negotiate MVNO access were not imposed on MNOs by the NCAH and that cable operators are not regulated at all whereas a third of the Hungarian broadband market is based on cable technology.

Market players highlight the very short consultation deadline (20 days) they have under the law to comment on NCAH decisions and deplore the lack of transparency of certain decisions. Cooperation between the NCAH and the Office of Economic Competition (the “NAC”) has been more intensive than in the first round of market analysis, as the NAC was part of the project management committee.

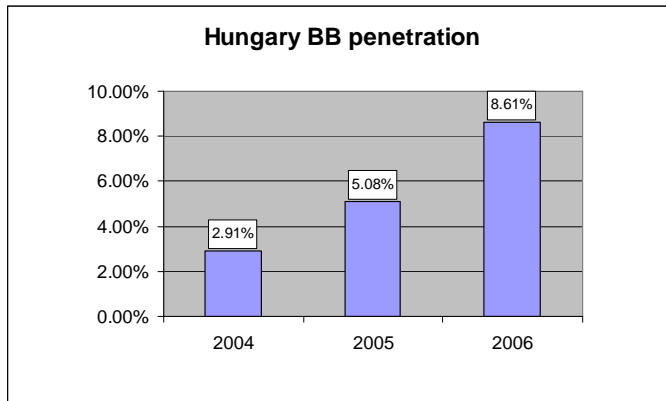
The concerns regarding the price fixing mechanism without market analysis still remain, as the Hungarian authorities have still not amended the law or repealed the secondary legislation as announced in October 2005.

## MARKET AND REGULATORY DEVELOPMENTS

According to Hungarian market players, the convergence of services became a real challenge as operators started to offer more and more bundled products.

### Broadband

#### Market situation



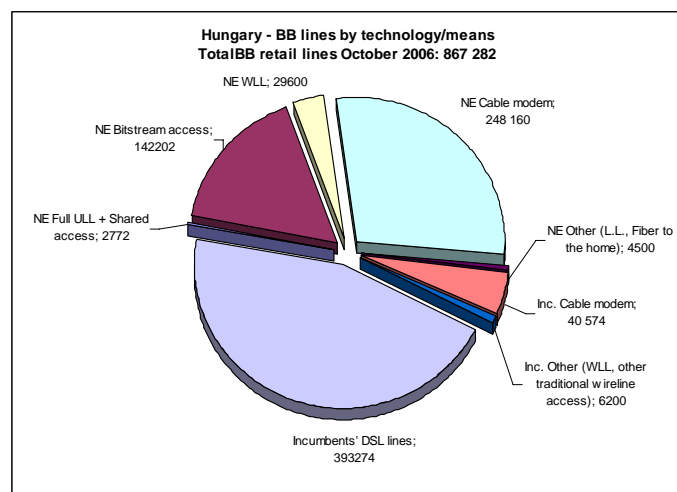
Following 2.91% and 5.08% broadband penetration in 2004 and in 2005 respectively, 2006 broadband penetration amounted to 8.61%. While the objective of the National Broadband Strategy adopted in 2005 is to reach total territorial coverage before 2010, this figure is still well below the EU-25 average (15.69%). From the data of the Hungarian Central Statistics Office (“KSH”) published on 6

December 2006, the number of Hungarian internet subscriptions exceeded one million (1.159 million) in the second quarter of 2006, a 30% increase in comparison with the same period in 2005. The use of broadband internet access is roughly four times higher than internet access based on dial-up or ISDN technologies.

Of the 230 ISPs, 19 operators cover roughly 90% of subscribers to internet services.<sup>86</sup>

In Hungary, two thirds (62%) of broadband lines are based on xDSL and one third (about 33%) on cable technology. At present, only cable operators offer triple play services (one offer comprising access to fixed, internet and TV services).

In January 2006, the main incumbent obtained a €190 million loan from the European Investment Bank (the “EIB”) for carrying out broadband roll-out projects in Hungary. This is to finance the extension of the geographical coverage of the existing Hungarian broadband services and to increase the number of broadband connections, their capacity and performance. The loan should be reimbursed between 2009 and 2013.



<sup>86</sup>

Second quarter of 2006

## *Regulatory issues*

Despite the flourishing platform competition between the network operators, the Hungarian cable market is not regulated from what the market review can tell.

As regards the wholesale broadband access market, the NCAH decided in September 2006 to set wholesale prices on a “retail minus” basis for each operator found to have significant market power (“SMP”) on the given market so as to guarantee a minimum margin for retail service providers.

As regards the LLU market, LTOs were designated as SMP operators and access and interconnection-related obligations were imposed on them. The Reference Unbundling Offers (the “RUO”) based on the transitional obligations<sup>87</sup> approved by the NCAH by the end of August 2004 were replaced by further obligations of 18 September 2006 based on the 2005 decision. As a result, the one-off fees of operators with SMP decreased by 66 to 82% while the monthly local loop charge fell by 18 to 34% respectively. On the back of this significant decrease, alternative operators soon published their new packages for fixed voice and broadband services, offering the possibility of naked DSL services<sup>88</sup> without telephone subscription or fixed voice call and broadband services with only one invoice. The Hungarian monthly average per fully unbundled local loop is below the EU average whereas for shared access it is still above the EU average.

By October 2006, 260 local loops had been fully unbundled, and there were 2 554 shared access lines reported.

## **Mobile markets**

### *Market situation*

In Hungary there are three MNOs, the mobile division of the main incumbent and two Hungarian subsidiaries of foreign MNOs, with respective market shares of 44.8%, 33.8% and 21.4% in September 2006 (45%, 34.1% and 20.9% in 2005). While no major changes have occurred in the different MNOs' market shares, the number of subscribers rose again last year. Mobile penetration reached 95%<sup>89</sup> (90%<sup>90</sup> in 2005), with 9.6 million subscribers in 2006. The decreasing number of pre-paid subscriptions (21 000 less than in 2005) (65%) and the increasing number of post-paid subscriptions (with 530 000 subscriptions - 6% more than in 2005) (35%) also shows evidence of increasing consumer trust. Between May 2004 and October 2006, a total of 129 877 mobile numbers were ported in Hungary, accounting for 1.4% of all mobile subscribers in Hungary.

All MNOs have a UMTS licence (granted in 2004) and started 3G services in 2005. The issue of harmonisation of the expiry dates of rights of use for 2G and 3G frequencies has not been resolved so far. A fourth 3G licence is still available in Hungary. The main MNO has 28% territorial HSDPA coverage.

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<sup>87</sup> Linked to the starting conditions and not to the market analysis

<sup>88</sup> The main incumbent plans to introduce naked DSL-based services in 2008

<sup>89</sup> September 2006 figures

<sup>90</sup> November 2005 figures



## *Regulatory issues*

In 2005, all MNOs had been designated as operators with SMP in the wholesale mobile call termination market, and the NCAH had taken temporary decisions under Article 7(6) of the Framework Directive to set mobile termination rates (“MTRs”) by using international benchmarks in the absence of an acceptable LRIC model, resulting in asymmetric MTRs. On 4 October 2006, the NCAH decided to require MNOs to gradually cut their MTRs on the basis of a specific glide-path model that would result in total symmetry of the cost-orientated MTRs of MNOs by 1 January 2009 (HUF 16.84 - about €0.06). The glide-path is applied as a new regulatory tool based on a bottom-up LRIC model. This decision enters into force on 1 February 2007. These wholesale reductions are also expected to bring down retail fixed-to-mobile prices.

MNOs have no access-related obligations as the NCAH did not find operators with SMP in the mobile access market in 2005. Consequently, there is no mobile virtual network operator (“MVNO”) to date in Hungary. Some interest was reported by market players, but MNOs found that the proposals made were not economically viable. The refusal by two of the MNOs of simple resale of mobile services was also reported.

## **Fixed**

### *Market situation*

In Hungary, there have historically been several operators with exclusive rights to provide public fixed local telephony: the main incumbent, with territorial coverage of about 80%, and four other LTOs,<sup>91</sup> which formerly enjoyed exclusive rights in geographical areas covering about 20% of the country.

LTOs had lost their exclusive rights by the end of 2002, but have continued to hold strong market positions in their respective territories. In terms of revenues, in 2006,<sup>92</sup> LTOs had an 89.3% market share for all types of calls, with 92% (95.68% in 2005), 89.9% (88.27% in 2005) and 87.4% respectively on local, long-distance and international calls markets, all of them well above the EU average. With the exception of international calls, the market shares of LTOs decreased in 2006.

Fixed line penetration was 33.57% in 2006 compared to 34.30% in 2005 and 95% mobile penetration in 2006 (112 000 fixed lines were withdrawn in 2006). Fixed voice traffic also continues to decrease while mobile voice traffic and mobile penetration are still constantly on the increase.

Traditionally, new entrants in the fixed communications markets have been more active in the non-residential segment of the market, providing voice telephony services through carrier selection and pre-selection. Nevertheless, in 2006 the main CS/CPS operator continued to consolidate its market position in the residential segment. In 2006, roughly 13.5% of international calls were via carrier selection in terms of minutes of conversation. Between January 2004 and October 2006, some 158 900 fixed numbers were ported in Hungary.

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<sup>91</sup> After completion of the acquisition of the second LTO by the owner of an LTO and the leading alternative operator, there will be four LTOs in all on the Hungarian electronic communications market, including the main incumbent.

<sup>92</sup> Figures as at 1 January 2006

In 2006, cable TV operators entered the access market for fixed voice services and totalled more than 150 000 subscribers by mid-2006.

### *Regulatory issues*

The NCAH found that there was effective competition in the wholesale markets for transit and trunk segments of leased lines.

On 10 May 2006, the NCAH decided to reduce the fees of the 5 SMP operators for wholesale call origination and call termination by 11 to 34% (11% in the case of the main incumbent). Moreover, the one-off fee for carrier selection was reduced on average by 50% whereas the fee for number portability dropped by 30 to 40%, thus resulting in lower prices than the EU-25 average (€9.32).

Following recent reductions in interconnection fees, charges for call termination on the incumbents' fixed network (single transit) are slightly lower than the EU-25 average, but geographical asymmetry continues to be a concern for both LTOs and new entrants.

Recently, the NCAH stated its position in a case relating to convergence of services. While the subscribers of a cable TV network operator and service provider, backed by an alternative network operator for the provision of fixed voice services, are able to call any number assigned in Hungary, the subscribers of the main incumbent and the second LTO cannot call the subscribers of the service provider concerned, as the two LTOs in question do not accept the third party as a transit provider. On 9 November 2006, the NCAH recommended that the operators in question should not refuse to transmit calls from their own customers through the network of a third operator (transit operator) to the network of a cable TV service provider. The NCAH also stated that if the situation remained unchanged it would take the necessary legal steps to find a remedy to the situation.

## **Broadcasting**

### *Market situation*

In Hungary, broadcasting transmission services are provided via several platforms: analogue terrestrial, cable, satellite, microwave, IPTV and DVB-T (in pilot phase).

National coverage in Hungary of analogue terrestrial transmission is approximately 90%. The major television and radio transmission company was privatised in 2005. Digital transmission is still only in the pilot phase. Approximately 55% of Hungarian households are subscribed to cable TV services. It is a very fragmented market with 397 service providers and the two biggest operators cover almost half of all cable subscriptions. Satellite broadcasting subscriber services are provided by two operators to 313 000 Hungarian households.

Microwave-based broadcasting services are provided by the recently privatised major television and radio transmission company. As of December 2005, this service became digitalised and goes out to 48 000 subscribers. The service is guaranteed only within a radius of 17km around Budapest. The number of subscribers is constantly on the decrease.

On 6 November 2006, the ISP unit of the main incumbent launched its internet Protocol television services, which was available to begin with in six of Hungary's main towns and cities.

As the Media Act of 1996 prevents cable operators from providing broadcasting transmission services to more than one third of the Hungarian population, the Commission initiated an infringement proceeding against Hungary in October 2005 and decided to refer Hungary to the Court of Justice in December 2006.

### *Regulatory issues*

Hungary has not yet notified the Commission of its draft measures relating to the wholesale market for broadcasting transmission services.

## **Horizontal regulation**

### *Spectrum management*

All the radio spectrum harmonisation Decisions have been transposed.

### *Administrative charges*

The market surveillance fee cannot be higher than 0.35% of the previous year's annual net revenue from e-communications services. The exact rate is established by the Minister each year. This amount has been set at 0.212% for the last two years.

### *Rights of way and facility sharing*

Following the approval of the owners of the land and property, the installation of masts and antennas is licensed by the municipalities; the NCAH participates as a special approval authority.

On 3 October 2006, the Hungarian Constitutional Court annulled several legal provisions, which allowed e-communications service providers to expropriate and to register rights of way on private property in the cadastral system in order to install e-communications equipment if agreement cannot be reached between the owners and the operators. The decision was delivered on the grounds of incompatibility with constitutional right to property. In practice, the decision of the Constitutional Court does not change the workings of Hungarian network roll-out as no operators are reported to have used these provisions to date.

## **THE CONSUMER INTEREST**

### **Universal service**

A new designation system was introduced in Hungary in 2004 whereby undertakings providing universal service are designated by the Minister. In April 2004, just prior to Hungary's accession to the European Union, each of the five LTOs was designated by the Minister of Informatics and Communications for 4 years as Universal Service Provider ("USP") and have since provided the four components of the universal service in their respective geographical area. In July 2005, the Commission initiated an infringement proceeding against Hungary expressing its concern about the transposition of Article 8 of the Universal Service Directive, on the grounds that operators which are not capable of providing all four components of the universal service were excluded from the tender process. In its reply to the letter of formal notice, Hungary assured the Commission that individual universal service components could be provided by different operators. Consequently, the Commission

decided in April 2006 to close the infringement procedure, although it will continue to monitor the situation very closely.

As of 2004, Hungarian USPs need to prove that they suffer an unfair burden and that they incur net avoidable costs related to the provision of universal services before they can receive compensation. If the costs of universal service are substantiated, operators can benefit from the Universal Electronic Communications Support Fund. For the years 2004 and 2005, USPs had applied for compensation but their requests were refused, as net avoidable costs were not substantiated.

### **Emergency services (112)**

Under the Act, electronic communications service providers must guarantee free access to emergency call services, including the single European emergency call number 112. Operators must also make caller location information available to the emergency authorities. The Commission sent a letter of formal notice to the Hungarian authorities in April 2006, as caller location information appeared not to be provided in practice to the Hungarian emergency authorities, either from fixed or from mobile networks. The Hungarian authorities informed the Commission in December 2006 that the collection and provision of caller location information by both fixed and mobile operators were technically feasible and in the one case in 2006 where caller location information had been requested by an emergency service such information had been provided by the operator. In 2008, the system is planned to be replaced by a push system in Hungary.

### **Must-carry**

Hungary has a must-carry obligation. The Commission's services' attention has been drawn to possible non-compatibility of the Media Act with Article 31 of the Universal Service Directive, as the number of programmes to be broadcast by cable TV operators appears not to be limited, and the general interest objectives are allegedly not clearly defined by the Media Act. In addition, it is claimed that the Media Act does not provide for a periodic review of this obligation, as required by the Universal Service Directive. The Commission's services are looking into this matter.

### **Consumer complaints**

Under Hungarian law, electronic communications consumers can be protected by several bodies, such as the NCAH, the NAC or the Consumer Protection Authority. A better and clearer division of powers is still needed to allow consumers to have effective access to the competent body.

To provide consumers with clearer information on electronic communications services, the Representative of Communications Consumer Rights (within the NCAH) introduced a choice and price comparison based on a consumer information system including fixed, mobile, broadband and cable TV services.

In 2006, the NAC delivered several decisions on the grounds of misleading advertisements and imposed heavy fines on the operators concerned.

# MALTA

## INTRODUCTION

Malta posted relatively good broadband penetration rates in 2006, but the growth rate decreased and the incumbent strengthened its retail market position. While fixed and mobile communications users still have a limited choice of operators, one of the mobile operators launched 3G services in August 2006. Fixed interconnection rates are considerably higher than the EU average. Meanwhile, technological developments and convergence have brought a number of innovative services to the market.

Market review delays and the practical application of remedies appear to hinder market developments. In 2006, the incumbent operator signed the first interconnection agreement with the cable operator, who owns a ubiquitous network with potential access to almost every household in Malta. Also, a CPS provider managed to conclude an interconnection agreement with the incumbent.

## REGULATORY ENVIRONMENT

### Main regulatory developments

In October 2006, the fixed incumbent finally signed the first interconnection agreements with the cable operator and with an alternative service provider, following the intervention of the NRA. Malta has not finalised the first round of market analyses and has been rather slow to adopt final measures on the markets analysed. Potential deficiencies with regard to the sanctioning powers of the regulator in a specific case of interconnection-related disputes have been identified, although it is noted that the sanctions imposed did bring about the intended results. The length and quality of the appeal procedure are still seen as an important obstacle to the application in practice of the regulatory framework.

### Organisation of the NRA

The national regulatory authority for electronic communications in Malta is the Malta Communications Authority (MCA), which in practice assumes all the responsibilities of the NRA under the EU regulatory framework.

The MCA has most of the powers needed to conduct its regulatory functions in an efficient manner and its performance is generally perceived as satisfactory. However, it seems to have limited sanctioning powers in access and interconnection-related disputes. The law establishes limits for financial penalties and these are at a relatively low level (€23 300 for a one-off fine plus € 466 on a daily basis) in certain serious instances of non-compliance (such as the failure to interconnect).

Despite the Memorandum of Understanding signed in 2005 between the MCA and the national competition authority (Office of Fair Competition - OFC) on their respective powers and responsibilities, there still appears to be some confusion on the part of some market players in this regard. The Ministry responsible for electronic communication is considering allotting more competition powers to the MCA, which is considered to have more expertise in this area. This would, however, require important changes to primary law, including the Competition Act.

Appeals continue to be a worry. While the structure of the appeals process is no longer in question (following the ruling of the Constitutional Court in January 2006), the duration of the appeals against MCA decisions (a number of appeals are currently pending final decision by the Appeals Board and these include cases that have been pending for a final decision for over two years) are seen as a serious problem in practice by stakeholders. The Communications Appeals Board was created by the law of 2004 replacing the former Telecommunications Appeals Board. The effect of these amendments remains to be seen.

**Decision-making**

In the reporting period, the MCA issued a number of important decisions for the development of competition in the Maltese electronic communications sector, including the revision of fixed interconnection tariffs.

The MCA adopted a number of final measures following the market reviews, finding a lack of effective competition on all the markets analysed so far. However, by November 2006 three markets remained to be notified: (i) wholesale unbundled access, (ii) wholesale broadband access and (iii) broadcasting transmission services. The MCA has also been rather slow to take final regulatory measures in the market review process and most of the measures were adopted only in September 2006 or later. It is therefore difficult to evaluate the effectiveness of the remedies adopted and the impact they will have on the development of competition. In general, the MCA has also imposed most of the available remedies on the retail markets.

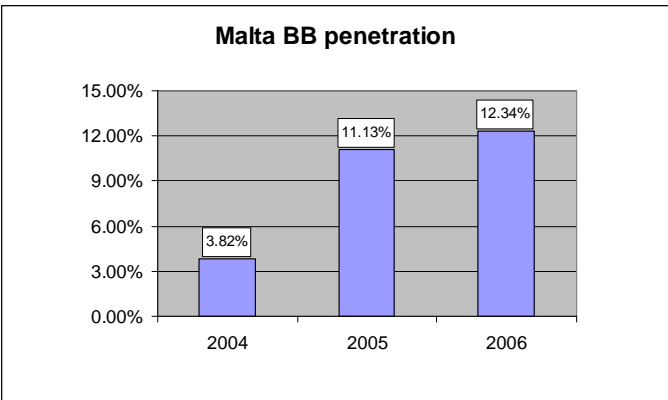
**MARKET AND REGULATORY DEVELOPMENTS**

Fixed to mobile substitution appears to be making progress in Malta, as evidenced by the reported increase in mobile-to-mobile traffic and the accompanying decrease in the on-net minutes of the fixed incumbent.

Thanks to converging technologies, some new services are being introduced. The cable operator has been offering a triple play service for over a year now. Video calls and music download services are offered by a mobile operator over its 3G network, and the other mobile operator is already providing mobile TV services (including video on demand) based on EDGE technology.

**Broadband**

*Market situation*

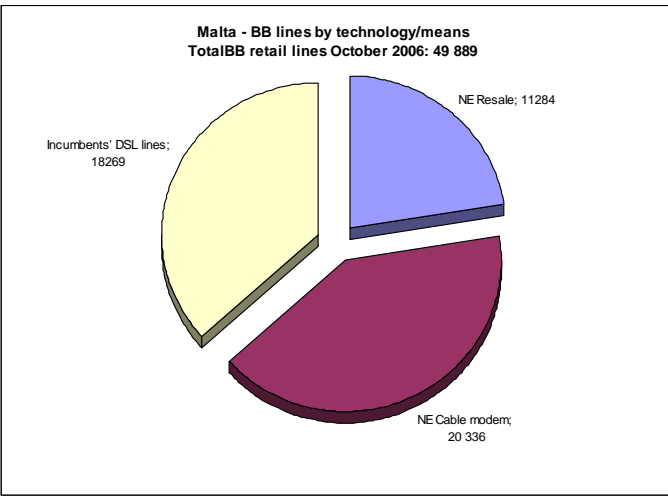


Broadband penetration in Malta was 12.34% in October 2006, below the EU-25 average (15.7%) but significantly above the new Member States average (6.7%). In 2006, broadband penetration grew at a much lower rate than the year before. Although limited, this growth reflects the continued increase in internet subscribers as a whole, as well as the conversion from dial-up to broadband connections, since speeds continue to

increase while prices remain stable. The slower growth could be attributed to the availability

of 128 Kbps services, offered via both ADSL and cable, which has proven to be quite popular, with around 12 500 subscriptions as at October 2006.

The main driver of the growth of broadband penetration seems to remain the existence of two ubiquitous networks and a relatively large (but declining) number of ISPs operating at retail level that resell the incumbent's product. To date, however, no local loop unbundling has been requested and there is no wholesale broadband access product available to third parties on either DSL or cable.



As at October 2006, DSL was the predominant technology (almost 59% of all retail broadband lines). The subsidiary of the fixed incumbent strengthened its position on the retail broadband market during the reporting period. This might be due to the merger with the broadband wholesale arm of the incumbent, which, according to alternative ISPs, would allow the incumbent to cross-subsidise its retail operations. Whereas in October 2005 these ISPs provided almost 31% of all broadband connections (on a resale basis), in October 2006 their market share had fallen to 22%.

*Regulatory issues (including market analyses and remedies)*

According to ISPs, the delays in market reviews and application of remedies are hindering broadband market developments.

In July 2006, the MCA published a draft market analysis for national consultation, including proposed remedies on the wholesale market for broadband access. It suggested including wholesale access to cable networks in the product definition of the relevant market and designating the incumbent fixed operator together with the monopoly cable operator as jointly having significant market power on the relevant market for wholesale broadband access. As appropriate remedies, the MCA proposes non-discriminatory access obligations, among other things, with price control based on cost accounting and accounting separation. The draft measure in this regard was notified to the Commission in December 2006 and was being examined at the time of writing of this report.

In October 2005, three licences for Broadband Wireless Access (BWA) were granted (two for current mobile operators and one for a consortium of local ISPs). However, the roll-out of BWA network was postponed until the first quarter of 2007 due to market uncertainty regarding the adoption of standards for this technology and the regulatory approach to be taken on the broadband wholesale market.

In addition, despite the existence of the reference unbundling offer of the fixed incumbent, no local loop has been unbundled so far and no prospective alternative operator seems interested in signing appropriate agreements with the incumbent. This may indicate that, although the prices for LLU are relatively low in Malta in comparison to the EU average, other conditions offered are not pro-competitive.

**Mobile markets**

### *Market situation*

End-users in Malta continue to have a limited choice of only two operators (one of which is the subsidiary of the fixed incumbent) offering mobile services. Penetration is slowly growing and at 83% remains below the EU-25 average.

One of the operators started providing 3G services in more densely populated areas in August 2006 and the other operator was prepared to follow suit by the end of 2006.

A steady increase in outgoing mobile minutes terminating on the mobile networks was observed in the reporting period. This can be partly attributed to some providers' offers encouraging the use of mobile phones in off-peak periods (e.g. per call charging instead of per minute or per second billing). This also indicates a more general trend of fixed to mobile substitution.

### *Regulatory issues (including market analyses and remedies)*

Following the analysis of the wholesale market for voice call termination on individual mobile networks, in December 2005 the MCA designated both mobile operators as having SMP on their respective networks and imposed non-discrimination, transparency and cost orientation obligations. In order to facilitate the process of setting cost-orientated rates, the MCA fixed a glide-path in December 2005, based on the EU-25 benchmark, designed to lower the mobile termination rates (MTRs) of the operators and to balance them out by January 2008 at €0.096. This means a drop in MTRs of almost 30% in the case of the subsidiary of the fixed incumbent operator and of 15% in the case of the other operator.

In July 2006, the MCA notified the Commission of its draft decision concerning the wholesale market for access and call origination on public mobile telephone networks. The NRA found that both operators jointly had SMP and proposed obligations with regard to cost-orientated and non-discriminatory access, including full MVNO access and national roaming. This decision could have a positive impact on the development of competition, given that in Malta there are service providers that would be interested in signing MVNO agreements.

The competitive situation in the mobile sector could also be enhanced by assigning the remaining frequencies in the 3G band. As reported last year, in August 2005 only two out of three licences available were granted and, despite some expressions of interest, the third frequency slot remains unassigned.

## **Fixed**

### *Market situation*

The fixed incumbent operator has maintained its dominant position in local access, local (national) calls and fixed to mobile calls, with market shares in terms of revenues close to 100%. In October 2006, following lengthy negotiations, the cable operator signed an interconnection agreement with the fixed incumbent. This marks the end of the de facto monopoly situation for the provision of national fixed telephony services that the incumbent had enjoyed up to that point. The cable operator (owning a ubiquitous network with potential access to almost every household in Malta) had already started to provide on-net telephony services in 2005 (for national and international calls based on VoIP technology). The impact of this on the competitive situation in fixed telephony was limited due to the lack of interconnection with other operators. The cable operator will now be in a position to offer a



full range of telephony services, making it possible for infrastructure-based competition to develop.

Also in October 2006, a first alternative service provider signed an interconnection agreement with the fixed incumbent to provide services based on carrier pre-selection (CPS). This could allow service-based competition to develop, which could be further encouraged by the planned introduction of either a single billing solution or wholesale line rental (WLR) to be imposed on the incumbent.

As regards international telephony services (including VoIP), the incumbent has strengthened its position and as from the third quarter of 2005 it regained most of its market share following the launch of its IP-based service, achieving a figure of 85% in the first quarter of 2006 in terms of revenues (in comparison to 65% in 2004). The aggregate market share of ISPs fell to 12%, with the remaining 3% of the market being served by the IP-based service of the cable operator.

#### *Regulatory issues (including market analyses and remedies)*

Following a review of fixed interconnection pricing, based on a bottom-up model designed by the MCA to depict an efficient next generation network, the MCA issued a decision in December 2005 that reduced the average call termination rate of the incumbent by 33% as of 1 January 2006. Further changes to the interconnection tariffs are expected in the first quarter of 2007.<sup>93</sup> Nonetheless, as at October 2006, the rate for call termination of €0.019 was still amongst the highest in EU (twice as high as the EU-25 average) and, combined with the relatively low retail charges of the incumbent, this makes it difficult for any prospective newcomer to compete with the latter.

In September 2006, the MCA issued a decision regarding the wholesale market for call termination on fixed networks and designated both the fixed incumbent and the cable operator as having SMP on their respective networks. The MCA maintained the obligation of the fixed incumbent for cost orientation of its interconnection rates by using accounting separation and a cost accounting model based on historical costs. A less stringent approach was adopted with regard to the cable operator, whose termination rates cannot be higher than the termination rates of the incumbent.

## **Broadcasting**

### *Market situation*

According to a report prepared for the Commission in 2006,<sup>94</sup> some 77% of Maltese households were connected to a cable TV network owned by a single operator by the end of the third quarter of 2005. The remaining households rely on terrestrial TV reception and only a limited number of households have a satellite dish allowing the reception of (foreign) free-to-air broadcasts.

As regards the roll-out of digital terrestrial TV (DTTV), the assignment of frequencies by the MCA to applicant operators was completed in 2005. Two operators, including the fixed

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<sup>93</sup> A decision reducing these rates by approximately 33%, bringing them closer to the European average, was published on 15 December 2006 and came into effect on 1 January 2007.

<sup>94</sup> Datisis 2006: "Digital Television Data: EU market for digital television".

incumbent, have been assigned eight channels for a duration of eight years, with the possibility of an extension by a further eight. An alternative operator started commercial operations in July 2005, but the full development of network coverage and commercial activities is dependent on permits to install a second mast and antennas in Dwejra and there appear to be very significant delays in this regard. The Commission services are looking into this matter.

The fixed incumbent operator has not yet started operating its DTTV network. According to the MCA, frequencies will be assigned to a new or existing DTTV operator for the purpose of broadcasting the content of local broadcasters, on the basis of general interest objectives, once the requisite policy framework has been put in place by the government.

As indicated by the MCA in a consultation paper published in October 2006 entitled Policy Review and Strategic Framework of Radio Spectrum Management, Malta plans to switch off analogue terrestrial TV transmission by 2010.

## **Horizontal regulation**

### *Spectrum management*

Malta appears to have implemented three of the four Commission Radio Spectrum Harmonisation Decisions (2004/545/EC in the 79 GHz frequency band; 2005/513/EC in the 5 GHz band; and 2005/50/EC in the 24 GHz band) by adjusting the national frequency plan (NFP) in January 2006. Decision 2005/928/EC in the 169 MHz range was expected to be implemented in the first quarter of 2007, through the update of the NFP and the adoption of a General Authorisation.

In October 2006, the MCA published a consultation paper on spectrum management, in which possible strategies to ensure efficient and flexible spectrum management are discussed. It mentions, *inter alia*, the possible introduction of frequency trading, spectrum liberalisation and licence exemptions, wherever possible.

### *Administrative charges*

All public communications network operators and all publicly available telephony service providers as well as broadcasting distribution service providers (cumulative in case an undertaking is providing more than one of these elements) are subject to a fixed charge of € 11 650 plus a percentage (ranging from 0.5% to 1.5%) of their total gross revenue. In October 2006 some network operators lodged a formal complaint with the Ministry responsible for communications arguing, *inter alia*, that the percentage charge based on the total gross revenue as defined by the MCA results in double charging of the interconnection related revenues.

### *Rights of way and facility sharing*

In addition to administrative charges, all national operators with any kind of equipment in place in, on or over roads in a minimum of fifty different localities (out of 71) in Malta (including operators of fixed electronic communications networks and other distribution networks) have to pay a fee of 0.4% of gross revenue, and not less than €279 600, for rights of way. This aspect of Maltese law was also raised in the above-mentioned complaint and is being contested by one of the major operators before the ordinary courts.

## **THE CONSUMER INTEREST**

### **Directory services and directory enquiry services**

An on-line, comprehensive directory service comprising (subject to data protection provisions) all subscribers, fixed and mobile, has been available in Malta since March 2006. This complements the comprehensive directory enquiry services that were already available in Malta before that date and has allowed the Commission to close an infringement procedure in this respect.

### **Number portability**

Number portability became available for mobile subscribers as of 1 April 2006 (an infringement procedure in this regard was consequently closed). By October 2006, there had been 5 500 portings reported. All the necessary provisions are also in place for fixed number portability and this should facilitate effective competition in the fixed telephony market.

### **Must-carry**

The current must-carry regime (applicable to broadcasting network operators to carry all national channels) is presently under review. The authorities are examining the options for a way forward with regard to general interest objectives and must-carry obligations.

# NETHERLANDS

## INTRODUCTION

The Netherlands was the leading country in broadband penetration in 2006. Competition between networks and services has been increasing as cable operators cover almost the whole territory and offer, alongside several DSL providers, attractive and inexpensive packages to consumers. Mobile markets continued to be competitive throughout the year.

Regulatory steps taken by the national regulatory authority are deemed to be effective, although some uncertainty has arisen as a result of systematic appeals against market review decisions. While the broadband and the cable markets have been experiencing serious consolidation moves in the last year, attention is shifting towards the next regulatory challenge, i.e. the incumbent's intention to convert its network to an IP-based next generation network by 2010.

## REGULATORY ENVIRONMENT

### Main regulatory developments

In 2006, the Dutch national regulatory authority, Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA), concentrated its efforts mainly on setting up the implementation measures and remedies agreed upon in 2005. The achievements of this regulatory process now seem to be contested by legal action brought by operators before the courts against all market decisions. A first judgment in August 2006 annulled the market decision relating to SMP designation and remedies in the mobile termination market.

As regards the incumbent's plans to roll out an all-IP network towards 2010, the NRA published an Issue Paper to consult stakeholders on the regulatory issues surrounding this Next Generation Network. In its Position Paper of October 2006, OPTA informed market players of its proposed positions and of the follow-up it considered necessary.

### Organisation of the NRA

No problems were reported concerning the powers of the NRA, which continue to be divided between OPTA and the Ministry.

Alternative operators draw attention to the regulator's exemplary decision (November 2005) on the illegal business discounts the incumbent had applied for a number of years. OPTA imposed a balanced sanction, given the incumbent's willingness to cooperate and to provide compensation - an administrative fine of €17 million, the highest to date. The decision did not trigger any appeal on the part of the incumbent and the alternative operators were compensated for damages suffered and profits lost. Instead of claiming individual compensations, they received and distributed the collective damage payment by means of a trust.

All market decisions of the NRA have already been challenged before the courts. Although appeals appear to be speedily handled by the competent court and have no suspending effect, this causes uncertainty and the risk of a regulatory vacuum. In its decision on mobile termination rates, the court emphasised the obligation placed upon OPTA, in accordance with

Article 1.3(4) of the Telecommunications Act, to substantiate its decisions by way of a qualitative and, as far as is reasonably possible, a quantitative statement on the proportionality of the measure and on the foreseeable consequences. This places a very heavy burden on the NRA, and thus may need addressing, as forward-looking analyses are nearly always uncertain and their outcome is always prone to be overturned by new facts and figures. As the court suggested furthermore that general competition law could address allegedly high tariffs, OPTA feels squeezed between national case law and the duty to cooperate with the Commission in the light of the Recommendation on relevant markets. The Commission is looking into this matter.

As regards dispute resolution, the downward trend in the number of cases submitted to OPTA for mediation in last years was confirmed: OPTA encourages market players to consult one another in an effort to prevent potential problems.

### **Decision-making**

Notifications of market decisions in 2006 mainly related to the implementation of the market decisions, such as wholesale price cap measures (WPC), the WLR obligation (wholesale line rental) and price control obligations in the mobile termination markets.

The NRA has taken deregulatory steps where possible, targeting a milder, less extensive regulation. Noticeable examples of this trend have been the retail measures for fixed telephony (price floor and price cap), the wholesale market for low-quality broadband access (residential bitstream), the retail markets for national leased lines (2 Mbit/s and higher) and the wholesale markets for trunk segments. At the same time, the NRA also intends to establish long-term tariff regulation, giving the markets more certainty and lower transaction costs.

Alternative operators criticise the slow implementation of the remedies and refer, for example, to the WPC decision, by which OPTA approved, only at the end of September, the incumbent's wholesale cost-accounting system. According to OPTA, this belated tariff regulation has not caused any damage to operators as the measure (valid for three years) applies from the beginning of 2006. While operators claim that the tariff reductions for fixed telephony are not really based on the proposed reporting system, but are the result of a deal with the incumbent, OPTA maintains that all the proposals have been discussed openly with the Industry Group. The WPC decision will lead to a decrease in wholesale prices of between 18% (full unbundling) and 90% (shared access) by the end of 2008.

Alternative operators have also expressed their concern about insufficient regulation of leased lines (shift to unregulated Ethernet products) and residential bitstream. In the light of existing competition, OPTA deems this to be disproportionate. For the unbundled access and bitstream markets, the NRA plans to carry out new market analyses, given the changing market conditions and the roll-out of the incumbent's all-IP network.

The incumbent's attitude towards regulation in the different markets where it has SMP status is likely to be influenced by the measures adopted with regard to cable networks. In June 2006, the incumbent sued the Dutch State, the NRA and the competition authority for "discriminatory and asymmetric regulation", claiming to be burdened by outdated regulatory obligations, while the cable sector, though operating in the same markets, was alleged to be exempt of regulation. The incumbent cites retail regulation, where it feels hampered in its efforts to offer bundled services freely, and the wholesale market, where it claims access to cable networks.

The preliminary injunction sought against the Dutch state was rejected in July 2006. It is worth mentioning that regulation has been imposed on the incumbent as a consequence of its SMP position on the retail voice markets, while cable companies are regulated on the basis of the finding of dominance in their respective coverage areas.

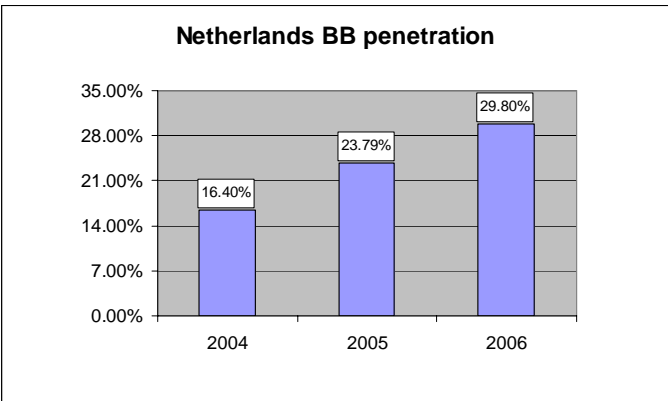
**MARKET AND REGULATORY DEVELOPMENTS**

Dutch markets show increasing competition between DSL providers and cable operators. Several types of broadband infrastructure, among them the network of the fixed incumbent, cover the entire or a large part of the country while the networks of the cable providers reach almost 90% of all households. High-speed broadband, content offering, digital telephony, VoIP or VoB and multiple play services, generally combined with improved service levels, are the benefits that consumers can reap from these developments.

Both the broadband and the cable market experienced serious consolidation moves last year. The incumbent acquired several alternative broadband providers while the largest cable operators are merging in several moves, potentially leaving only two big players on the market. However, several alternative types of infrastructure (e.g. mobile networks, satellite, DTT, FTTH) continue to compete locally or nationally.

**Broadband**

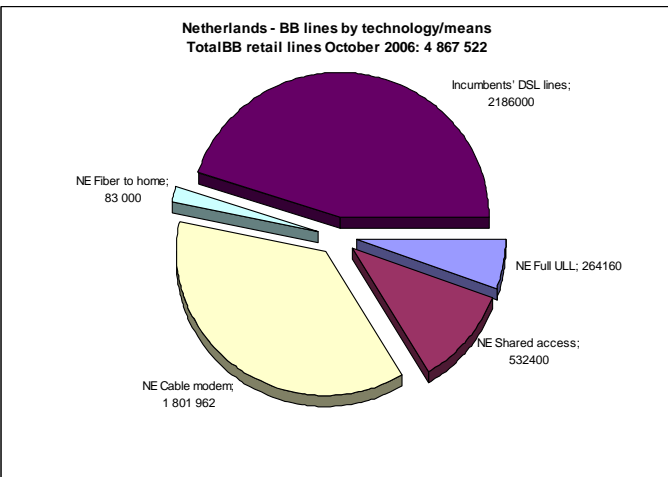
*Market situation*



At 29.80%, the Dutch are the champions of broadband penetration. Growth has been steep and amounted to more than 6 percentage points between July 2005 and October 2006. The principal provider of broadband lines is still the fixed incumbent (44.9%) while the other DSL providers have a market share together of 16.3%. The prime competitors in the Netherlands, however, are the cable

operators, which jointly have a market share of between 35 and 40%. Both the incumbent's and the cable operators' networks cover more than 90% of the Dutch territory.

New entrants have already climbed far up the ladder of investment. Alternative operators use mainly the unbundled DSL lines of the incumbent (16%), bitstream is virtually non-existent and resale is not used. Several DSL providers can reach 50% to more than 70% of Dutch households via unbundling. Positive figures with respect to unbundling would, however, need to be revised if the latest acquisition of an important alternative DSL provider by the incumbent



(September 2006) is to be taken into account (subject to regulatory approval by the competition authority).

*Regulatory issues (including market analyses and remedies)*

OPTA imposed light remedies on the new voice over broadband retail services (no price cap) and did not regulate the wholesale market for low-quality broadband access. The latter decision will however be reviewed in the light of the changing market conditions (following the incumbent's plans to roll out its All IP network).

Wholesale prices for fully unbundled and shared local loop are low and continue to decrease. 2006 connection prices more than halved compared with 2005. Prices per shared access are among the lowest in Europe (€15.3 for connection and €0.74 for monthly rental). The WPC implementation decision, valid from 2006 to 2008, provides for price reductions of between 18% (recurring costs for unshared access) and 90% (recurring costs for shared access) by the end of 2008.

## **Mobile markets**

*Market situation*

With four operators, one MVNO and a dozen service providers, the number of mobile connections and mobile traffic increased still further in 2005-2006 (due among other things to fixed to mobile substitution). The mobile subsidiary of the incumbent has a market share of 48% following last year's acquisition of a competitor. Mobile penetration is now more than 100%. 3G services are offered by two of the four operators while two operators are expanding their network of WiFi hotspots.

*Regulatory issues (including market analyses and remedies)*

After average decreases of more than 40% compared with 2003, following the voluntary agreement between mobile operators, mobile termination tariffs are around the European average (slightly asymmetric rates: €0.110 for major operators with both GSM and DCS licences and €0.124 for other operators with DCS licence only). In 2005, OPTA carried out the analysis of the mobile call termination market, found SMP for each individual operator and imposed a price control obligation, to be implemented in 2006 by means of a glide-path. Since this market analysis was annulled by the court in August 2006 and OPTA was ordered to issue new decisions, this market is still unregulated in practice. OPTA communicated in November 2006 that it intended to perform a new market analysis.

## **Fixed**

*Market situation*

Inland geographic calls fell steeply in 2005. Customers of the fixed incumbent and CP/CPS providers are switching either to cable telephony or to VoIP services. Cable companies attract most of these customers (+230 000 in 2005) because of their interesting multiple play offerings, but the trend also seems to benefit broadband providers, and, proportionally, the incumbent's own internet providers even more so. Several companies, among them the incumbent, have recently started to introduce VoB services.

The incumbent remains dominant in most markets (retail revenue market share of 70-80% in national calls).

### *Regulatory issues (including market analyses and remedies)*

While regulatory pressure has been maintained on most of the wholesale markets since the incumbent was designated as an SMP operator in all telephony markets (except for the international calls market), it appears that the regulation of the corresponding retail services has been softened. OPTA has developed the traffic light model, which allows the incumbent to assess its end-user tariffs itself. In addition to “green” services, which may be introduced without previous notification, and “red” services, which are forbidden because they include anti-competitive tariffs or do not abide by non-discrimination, transparency and price cap requirements (the incumbent is nonetheless allowed to ask for a derogation in special circumstances), “amber” services, mainly consisting of bundles of regulated and unregulated products and services, have to be submitted for approval to OPTA. All tariffs are subject to a combinatory price squeeze test and must meet the requirements of cost-orientation (price floor) at market (reasonable retail return) and service level (incremental costs), but only “amber” services are subject to ex ante control.

Alternative operators complain, however, about the lack of clarity of the price squeeze test and refer to the supposedly even greater discretion of the incumbent to offer individual discounts. In their view, the incumbent is able to exercise considerable leveraging powers from voice to broadband. The incumbent, on the other hand, criticises the restrictions imposed on its offering of bundles, given the context of competition with the cable networks. Viewed by the NRA, the traffic light model seems nevertheless to offer sufficient room for competition, as none of the incumbent’s tariff proposals has so far had to be rejected.

## **Broadcasting**

### *Market situation*

As indicated, cable platforms (taken jointly) are ubiquitous in the Netherlands (6.2 million households, mostly analogue television).<sup>95</sup> As mentioned, three of the four largest companies are merging, leaving just a few big players on the market.

Digital television is expanding very rapidly in the Netherlands (1.1 million subscribers by the end of 2005).<sup>96</sup> Since mid-2005, digital cable television has been taken up so fast (more than tripling to 1 million subscribers in December 2006<sup>97</sup>) that cable now has the biggest market share. DVB-T (including the fixed incumbent) is also growing. As regards DSL operators, one was already offering a complete package of IPTV channels (after acquiring soccer rights), and was followed in mid-2006 by the incumbent’s DSL television.

Digital terrestrial switchover took place in December 2006. Public and regional channels remain available free-to-air.

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<sup>95</sup> Dataxis 2006: “Digital television data: EU market for digital television” (Figures from Q3 2005).

<sup>96</sup> Market Report for 2005 by the Dutch Ministry of Economic Affairs. By the end of 2005, more than 50% of customers were using satellite platforms but the market shares of digital satellite and digital cable and terrestrial were already converging.

<sup>97</sup> According to data from VECAL, association of cable operators.



### *Regulatory issues (including market analyses and remedies)*

In 2005, the five biggest cable operators were found to be dominant in their respective coverage areas on the wholesale markets. Following the retail market decision of March 2006, all operators are obliged to operate transparent end-user tariffs and to unbundle their free-to-air packages from other paid services of products (such as broadband internet or telephony services). OPTA is monitoring the development of retail tariffs in the market, also given that the one-year voluntary agreement of the operators not to increase their tariffs lapses in March 2007.

### **Horizontal regulation**

#### *Spectrum management*

The Dutch Ministry conducted a public consultation on the question of whether to extend current GSM licences from 2010, at a reduced period of 5 years or using a different period in order to synchronise with EGSM and GSM 1800 licences, or, alternatively, to auction them where there is an expression of interest from new entrants. The Dutch authorities also raised the question of whether it would be possible to introduce more flexibility into the use of GSM bands. The Ministry is committed to taking a decision at least three years before the licences expire, i.e. in March 2007.

#### *Rights of way and facility sharing*

The Dutch parliament recently amended the Telecommunications Act with respect to rights of way, the aim being to establish structural separation between ownership and decision powers within municipalities providing electronic communications networks. The existing regime is being continued (obligation to tolerate the installation, maintenance and clearance of cables, jurisdiction of the municipalities restricted to rules on place, time, implementation, shared use and coordination with other public utilities, no permission to grant the rights of way themselves). Parliament, however, approved an amendment imposing a ban on the provision of new electronic communications networks or services by municipalities or on their participation in undertakings which provide such networks. This ban can only be lifted where a specific type of network cannot be established without municipal participation and it has to be surrounded by specific guarantees, such as a periodic report on continuing this activity or not and the obligation to request the opinion of the NRA. Municipalities may only play a limited role in the provision of electronic communications networks (minority participation, obligation to alienate, etc.).

#### *Network roll-out*

In November 2005, the fixed incumbent announced its plans to migrate to a next generation network, migration to all-IP. It intends to phase out all of its local exchanges (MDF) and to roll out fibre to street cabinets (fibre to curb). With the commitment to develop an “open wholesale model”, the incumbent requests the NRA not to intervene as it is ready to offer open wholesale broadband access to its network for alternative providers.

These plans have been received with growing concern by competitors, who claim that investment in LLU came to a halt in the first half of 2006. In October 2006, OPTA issued a Position Paper, inquiring whether MDF-access customers will be able to roll out their networks to the sub-loop and proposing a regulatory approach. In the view of the NRA,

certain obligations will need to be addressed by new market analyses geared first and foremost to ULL and wholesale broadband access. The alternative to the current obligations would consist of phasing-out conditions for the withdrawal of access already granted, a regulated offer for unbundled access to the sub-loop (sub-loop unbundling or SLU), and regulated offers for Wholesale Broadband Access (in areas where KPN does not yet offer SLU and/or SDF backhaul and MDF locations are phased out), the provision of glass fibre and/or glass fibre routes and SDF backhaul.

Alternative operators suggest that the incumbent's plans are just part of its commercial strategy to boost investments on its network, and they worry about the lack of information on aspects such as the conditions and costs for access to and co-location in SDF, the possibilities and costs of SDF backhaul and the wholesale/retail ratio. In their view, existing infrastructure competition has to be maintained and MDF services may be seen as separate from the roll-out to the sub-loop. As there are doubts as to whether this roll-out is economically feasible for competitors, they urge OPTA to investigate the negative effects of the plans and to examine alternative scenarios. Viable alternatives to MDF access should become available when the incumbent decommissions the MDF buildings where alternative DSL providers are co-located.

By the end of 2006 the incumbent had started on a series of pilots, which are subject to conditions imposed by OPTA in terms of information for and cooperation with competitors. Roll-out is scheduled to start in May 2007. A reference offer for SLU and migration was published in October 2006.

## **THE CONSUMER INTEREST**

### **Emergency services (112)**

In April 2006, the Commission started infringement proceedings against the Netherlands because the Dutch authorities had failed to take the necessary measures to ensure that operators make caller location information available to the emergency services for mobile calls to 112. The Ministry had already started a European call for tenders to deliver and install a new national telephone exchange for emergency calls, which can also handle caller location information. This will be fully operational in October 2007. In the meantime, the Ministry is starting individual discussions with all the relevant operators on the technical specifications for providing location information.

### **Number portability**

The fairly high tariffs of the past have been reduced to between € 2 and 8 for fixed lines (on the basis of reasonableness criteria). Mobile number portability is hardly charged due to the reciprocity of the amount of ported numbers (bill and keep). Another issue addressed by regulation is the internal portability of numbers (from one tariff scheme to another, within the same operator).

### **Must-carry**

The Commission has opened infringement proceedings concerning the compatibility of the Dutch must-carry rules with the requirements of Article 31 of the Universal Service Directive.

# AUSTRIA

## INTRODUCTION

The current framework is firmly established in Austria and has by and large produced benefits for end-users. Retail mobile voice prices, for instance, are quite low, having continued to fall in 2006. At the same time, further consolidation has taken place, and win-back strategies by the incumbent fixed network operator, for example in the retail broadband market, are showing signs of partial success.

The NRA has already embarked on the second round of market analyses, having completed its first round for all but one of the relevant markets in the Commission Recommendation and also imposing the resulting remedies. In doing so, it took general recourse to the full range of possibilities allowed by the regulatory framework. In addition, its final decisions generally followed the comments made by the Commission. However, several remedies have not yet been implemented in practice, since details have needed to be clarified in dispute-settlement procedures before the NRA. In many instances market players meanwhile preferred to stick to old agreements established prior to the market review process.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The NRA has the means to ensure the imposition of remedies, and uses them in full. In particular, it imposed cost-accounting obligations and defined the cost model to be applied where relevant. However, in practice the NRA does not set prices as part of market analysis or tariff authorisation procedures but only on request by operators in dispute-settlement procedures. In theory the NRA would have the power to set prices if it noted a deviation from the price-setting standard it imposed as a remedy for a particular service. The NRA's practice can lead to delays in setting tariffs and it could therefore affect the efficiency of the regulatory process.

It is difficult to assess the efficiency of remedies at this stage, as many remedies have not been implemented yet. Market players appear to prefer applying old agreements rather than waiting for new standard offers to be approved. In addition, although cost orientation was imposed for access products, the incumbent fixed network operator can make special offers ("Aktionsangebote") for a limited period with extremely low retail prices. Such offers are not regulated, and alternative market players may find it difficult to compete with them even though they are usually accompanied by corresponding wholesale offers.

### Organisation of the NRA

The Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR) is the operational arm of the Austrian Communications Authority (KommAustria) and the Telecommunications Control Commission (TKK). The RTR is divided into two specialised sections (broadcasting and telecommunications) and is *inter alia* responsible for market definition in the telecoms sector. There exists the (hitherto only theoretical) possibility of these two sections' heads receiving direct instructions from the Federal Chancellor or the Ministry of Transport, Innovation and Technology respectively on how to accomplish their tasks.

KommAustria regulates the broadcasting sector under the direct authority of the Federal Chancellery, with just one official being responsible for its decisions. In its 10th Implementation Report the Commission expressed concerns about KommAustria's independence, given that the public-broadcasting infrastructure is owned by a foundation. For details of that concern reference is made to that report.

Following an infringement proceeding Austria changed its legal provisions to ensure that in principle appeals against KommAustria's decisions do not have suspensory effect. The amended law came into force on 1 July 2006, and the infringement proceeding was then closed.

### **Decision-making**

In the first round, on the one hand, regulation was withdrawn in those markets where no SMP was found, i.e. the residential international calls market (market 4) and the trunk leased lines market (market 14). Mobile access and call origination was found to be competitive and therefore no regulation was imposed.

On the other hand, TKK imposed the full set of remedies in all wholesale markets found to be non-competitive, apart from the markets for fixed termination by alternative operators, where lighter remedies were imposed. TKK also imposed strict remedies in retail markets. In particular, cost orientation based on cost accounting was imposed in all retail markets where TKK found SMP.

Several remedies were imposed, but they have not yet been applied de facto. Details of remedies often have to be clarified in dispute-settlement procedures before the NRA if the parties cannot reach agreement. This postpones their application. In several cases, for example concerning standard offers, corresponding remedies have not yet been applied due to lengthy negotiations. Market players appear to prefer to stick to old agreements from the time before market analyses as they fear that, for example, standard offers approved by the NRA might be less advantageous.

The Commission vetoed one of the analysed markets (the wholesale transit market) which the relevant Austrian NRA (TKK) still needed to re-notify at the end of the reporting year.

The TKG requires the NRA to prove the appropriateness of market definition and the status of the markets every two years, the reason being that it is difficult to predict market development for a longer period in such dynamic markets.

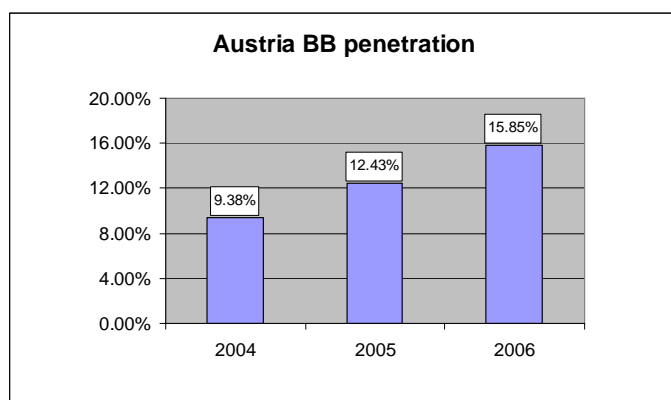
Thus, TKK started the second round of notifications by notifying the leased lines markets (terminating segments and minimum set), the markets for fixed network termination and origination, for mobile termination and for wholesale unbundled access to metallic loops and sub-loops for the purpose of providing broadband and voice services. So far the market analyses and the proposed remedies correspond very much to what was decided in the first round, above all as regards the market for mobile call termination, for example.

However, in the market for leased lines-terminating segments in certain major cities regulation is now only imposed up to a transmission speed of 34 Mbit/s; capacities above this threshold are no longer regulated in such cities. As regards fixed origination services, the NRA is considering an adjustment concerning market entry barriers into the fixed transit market relating to minimum capacity load required for joining links.

## MARKET AND REGULATORY DEVELOPMENTS

### Broadband

#### Market situation

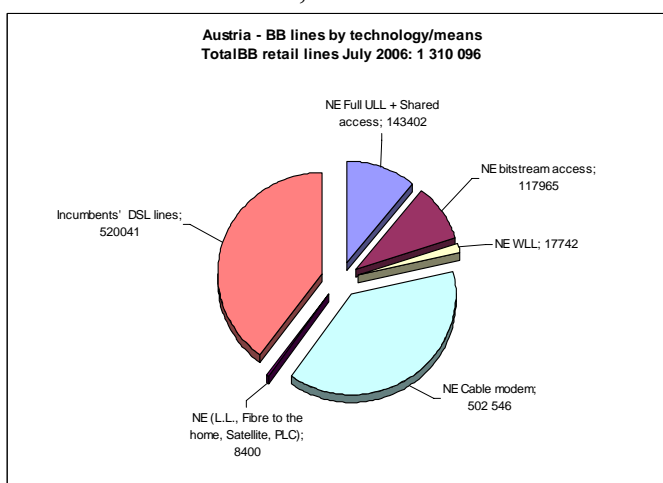


The penetration rate was 15.85% in July 2006 (up from 13%)<sup>98</sup>. Cable continues to be the alternative operators' most popular technology, as 38.86% based their offer on cable modem.

As far as market shares for retail broadband in general are concerned, the alternative operators' market share was 60.2%, down from 63% in July

2006. Their market share was 19.32% based on DSL and 40.83% based on other means. The DSL figure breaks down as follows: 10.23% based on LLU, 9.09% based on bitstream. Finally, 1.31% of the alternative operator's market share are based on WLL and 0.68% on other technologies.

With regard to broadband, the competition is mainly between cable infrastructure and DSL. Consolidation is also taking place in this regard, as a large cable network operator recently acquired a DSL access provider. Broadband revenues rose from €361 million in 2004 to €440 million in 2005, an increase of about 21.9%<sup>99</sup>.



#### Regulatory issues

In the wholesale broadband access market TKK imposed retail-minus pricing obligations and required the dominant undertaking to establish a cost-accounting system suitable for implementing the retail-minus obligation.

However, despite the imposition of remedies, the incumbent fixed network operator's market share is growing. This may be due to the fact that the imposed remedies, like bitstream access, are not yet operative. Competitors are still waiting for the standard offer and negotiations are continuing. In the meantime contractual relationships are based on agreements in place before the new framework came into force.

Some alternative operators claimed that the applicable monthly rental fee for LLU was too high at €10.70 and did not produce an acceptable profit margin. In addition, market players reported that the incumbent fixed network operator tended to create new obstacles to LLU by

<sup>98</sup> The Austrian NRA's estimate for October 2006 is 16.42%.

<sup>99</sup> Data taken from RTR's Communications Report 2005.

evoking practical problems in opening the lines, by imposing additional conditions and by delaying the actual unbundling work. On 11 December 2006, TKK imposed a supervision measure for unlawful behaviour with respect to unbundling after deciding that the incumbent operator violated its access- and non-discrimination obligations through delays<sup>100</sup>.

The Austrian Chamber of Labour's Consumer Protection Department indirectly confirmed such delaying tactics by stating that consumers often do not have any provider at all for a certain period after applying to switch their operator.

## **Mobile markets**

### *Market situation*

Mobile penetration was 108% in October 2006 (up from 99%), and there were 8.9 million subscribers. There are four mobile network operators in the Austrian market now. The second largest operator acquired the previously fourth largest. The Commission approved the merger after the second largest operator entered into certain commitments. When assessing the merger, the Commission stressed the previously fourth largest operator's role as a "maverick" on the market that had promoted competition through remarkably low end-user prices. It remains to be seen whether prices for mobile communications will remain at their current very low level.

The market share of the mobile operator owned by the incumbent fixed network operator remained steady at 39%. The market share of the second largest operator (after the merger with the previously fourth largest operator) was 35.1%, that of the third operator about 19%.

### *Regulatory issues*

Comments made during the national consultation and by the Commission in relation to the market for voice call termination on individual mobile networks (market 16) (specifying the LRIC costing model; shortening the glide path) were taken into account by TKK when implementing the final measure, and substantially improved the effectiveness of the remedy when it was finally imposed. Most importantly, TKK substantially reduced the glide path toward cost orientation for mobile termination (from 31 December 2011 in the notified draft measure to 31 December 2008 in the measure adopted).

## **Fixed**

### *Market situation*

The incumbent fixed network operator further strengthened its leading position in the market. The alternative operators' market share went down from 49.6% to 48.4% for fixed calls to mobile, and from 45.5% to 45.2% for national phone calls including internet, in terms of retail revenue. For local calls, where the incumbent had increased its market share significantly according to last year's Implementation Report, the NRA is no longer able to furnish updated figures due to a change in its data methodology. The alternative operators' market share for local calls to the internet was 27.4%, based on outgoing minutes. Their market share by retail revenue for all fixed phone calls increased from 45% to 45.4%.

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<sup>100</sup> [http://www.rtr.at/web.nsf/deutsch/Telekommunikation\\_Regulierung\\_Entscheidungen\\_Entscheidungen\\_R-4-06?OpenDocument](http://www.rtr.at/web.nsf/deutsch/Telekommunikation_Regulierung_Entscheidungen_Entscheidungen_R-4-06?OpenDocument).

The unbundling of the local loop continues to make progress and results should become more visible in the near future. According to the alternative operators, however, only 5.7% of the incumbent's fixed lines have been unbundled so far.

#### *Regulatory issues*

TKK imposed the full set of remedies in all wholesale markets found to be non-competitive, apart from the markets for fixed termination where lighter remedies were imposed for alternative operators.

TKK also imposed on the incumbent fixed network operator the obligation to offer wholesale line rental to its competitors. However, this has not been applied in practice yet.

As regards the terminating segments of leased lines, the NRA imposed various remedies, such as a transparent accountancy obligation.

### **Broadcasting**

#### *Market situation*

On the market for terrestrial television broadcasting one undertaking was identified as having control of 98% of the sites and transmitters for analogue terrestrial TV broadcasts. The same undertaking was identified on the market for terrestrial FM radio broadcasting as controlling 62% of the sites and 84% of the transmitters installed for terrestrial radio broadcasts. The said undertaking manages the nationwide public broadcasting station.

#### *Regulatory issues*

Back on 14 October 2003, KommAustria notified a market definition deviating from the Recommendation. KommAustria had split the market defined in the Recommendation into six different product markets.

KommAustria designated two of these markets as being susceptible to ex ante regulation: the market for terrestrial television broadcasting and the market for terrestrial FM radio broadcasting.

The following remedies were imposed: the obligation to grant access to, and use of, specific network facilities (including masts and sites); obligation of non-discrimination; obligation of accounting separation; price control (obligation to charge cost-oriented prices), and the obligation to provide a reference offer.

### **Horizontal regulation**

#### *Spectrum management*

As regards the relevant Commission decisions on this issue, Austria implemented the decisions on the harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of Wireless Access Systems (2005/513/EC), on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment (2005/50/EC), and on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment (2004/545/EC), by duly adapting the

federal frequency usage plan. The decision on the harmonisation of the 169.4-169.8125 MHz frequency band (2005/928/EC) was implemented at the beginning of 2007.

## **THE CONSUMER INTEREST**

### **Retail tariffs**

The trend in retail rates for fixed line voice telephony has been stagnating. According to the NRA, the trends in retail rates for mobile communications have been clearly going down. Retail prices for broadband have been decreasing only slightly<sup>101</sup>.

### **Payphone access charge**

Another issue affecting retail prices and consumer choice concerns the “payphone access charge”. During dispute-settlement procedures before the NRA the incumbent fixed line operator asked to be allowed to obtain such a charge from four of its competitors currently providing 0800 freephone number calls to their clients from public payphones.

By setting the payphone access charge TTK intended to allow the incumbent fixed network operator to charge the abovementioned operators not only for the call origination as such, but also for the use of the public payphones by designating these as ancillary costs to interconnection.

On 19 December 2005, the Austrian Administrative Court ruled that this charge did not constitute an interconnection fee and that TTK was not the relevant authority in this case. However, it did not assess the payphone access charge as such. To respond to comments that the use of public phone booths with these calling cards formed part of the universal service obligation of the incumbent fixed network operator designated to provide this service, the Ministry changed the Universal Service Regulation by releasing the designated universal service provider from the obligation to transfer each and every call to a 0800 number from a public telephone booth. The Commission services are currently investigating whether this complies with Article 6 of the Universal Service Directive.

### **Tariff transparency**

Lack of transparency is still an issue, especially with regard to mobile tariffs, despite the fact that all tariffs are published on the NRA’s website. The Austrian Chamber of Labour’s Consumer Protection Department has complained about the further abolition of per-second billing contracts.

### **Premium services**

The Austrian Chamber of Labour’s Consumer Protection Department reported that consumers are billed for incoming premium SMSs even though they had not asked for such an SMS and no civil agreement had been concluded. For its part, the NRA confirmed that consumers do not have to pay for such SMSs

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<sup>101</sup> RTR’s Communications Report 2005.



## **Universal service**

As far as the inquiry services are concerned, their characterisation as a universal service was slightly changed by an amendment to the TKG in 2006. If competition exists there will be no invitation to bid. It is the objective that only if the market itself does not or cannot provide the service, the Federal Minister would designate a universal service provider. As a result, the incumbent fixed network operator is no longer obliged to offer the inquiry service as a universal service obligation.

The funding of the universal service has so far not been based on the funding mechanism laid down in the TKG, because the operators managed to agree by civil-law means on compensation for the universal service provider. The incumbent has applied to the NRA for such compensation for 2005, and the funding mechanism pursuant to the law might be applied.

## **Must-carry**

As mentioned in the previous Implementation Report, the nature of the specification of the general interest for the must-carry obligation of the two nationwide public broadcasting stations is being examined. No further administrative decision is required to impose this obligation.

## **Data protection**

The industry expressed concerns about the Austrian transposition of Article 13 of the Electronic Data Protection Directive dealing with electronic advertising, and this after a recent amendment to the TKG intended to assuage the Commission's concerns expressed in a letter of formal notice in March 2005. The Commission closed the infringement proceeding following that new legislation.

# POLAND

## INTRODUCTION

With the highest mobile penetration growth in the EU in 2006, the Polish electronic communications sector has witnessed significant growth in mobile markets, generating interesting developments such as converged fixed-mobile offerings. By contrast, broadband penetration remains one of the lowest in the EU, and the incumbent even strengthened its position in the retail market. The incumbent also continues to be largely dominant in the fixed calls markets.

Delays in conducting market analyses did not decrease regulatory uncertainty on the market. While the new regulator established in January 2006 is actively trying to resolve market problems, concerns have been voiced with regard to its independence and impartiality and, indeed, some of its decisions. Moreover, various pieces of the regulatory toolkit are still missing, e.g. a market analysis-based access and interconnection regime, a comprehensive directory service or caller location for emergency services.

## REGULATORY ENVIRONMENT

### Main regulatory developments

In January 2005, following political changes in Poland, a new NRA was established – the President of UKE (Office for Electronic Communications) – to replace the former, the President of URTiP (Office of Telecommunications and Post Regulation). UKE appears to have a very proactive attitude towards the problems on the market. This is welcomed by alternative operators and criticised by the incumbent operator and to a lesser extent by mobile operators, which were affected by several far-reaching regulatory decisions. The new NRA stated on several occasions that its strategic goal is to significantly lower the prices paid by end-users for electronic communications services and appears to be using all possible means to achieve this. Issues have been raised regarding the provisions related to wholesale line rental (WLR), retail prices for broadband access and possible MVNO access.

Poland notified its first market analyses only in April 2006, yet by November 2006 fifteen out of eighteen markets defined in the Recommendation were notified. Several market analyses are still to be finalised. By November 2006 final measures had been adopted for just five out of eighteen relevant markets.

An amendment to the 2004 Telecommunications Act, introducing quite significant changes to *inter alia* the powers of the NRA, market analyses, consumer rights and corresponding obligations on the part of all undertakings, is scheduled for the first half of 2007.

### Organisation of the NRA

The replacement of the former NRA, the President of URTiP, by the President of UKE following the 2006 elections cast doubts on the Polish NRA's political independence. In addition, as URTiP ceased to exist in January 2006, and the President of UKE was officially appointed only in May 2006, the legality of the decisions issued in the meantime has been questioned. The independence of the Polish regulator was further weakened when Poland adopted the law on state personnel resources and key state administration officials that entered into force on 26 October 2006. According to this law, a 5 year term of office for the President

of the NRA was repealed, and the President of the Council of Ministers was granted an unlimited right to dismiss the President of the NRA at any time and without the necessity to indicate reasons. This raises the concern that the changes introduced may influence the impartiality of the NRA given in general the holdings in various electronic communications operators. The Commission has opened infringement proceedings.

UKE bears most of the NRA's responsibilities under the regulatory framework (with the notable exception of market definition for the purposes of market analysis for which the Ministry of Transport, previously the Ministry of Infrastructure, is responsible) and appears to have most of the necessary powers to fulfil its regulatory functions effectively. However, the regulator does not seem to have the necessary specific powers to encourage and where appropriate ensure, adequate access, interconnection and interoperability of services irrespectively of the market power of the undertakings involved. An infringement proceeding in this regard is ongoing.

As far as appeals are concerned, the 2004 Telecommunications Act was amended in December 2005 in order to transpose the regulatory framework requirement stating that an NRA decision should stand pending the outcome of the appeal.

The length of appeals appears to be an issue, as apparently the court takes on average from two to three years to decide on an appeal, thus resulting in regulatory uncertainty. The Ministry of Justice has decided to delegate more judges and assistants to the Competition and Consumer Protection Court responsible *inter alia* for hearing electronic communications cases. Some training is also foreseen for the judges on the specific aspects of the telecommunications law.

### **Decision-making**

Apart from some criticism voiced by the incumbent operators (both fixed and mobile), market players generally consider the performance, quality and effectiveness of the new Polish regulator to be quite satisfactory.

In 2006 the Polish NRA issued a number of decisions important for the development of the competitive environment in the market, including imposition of bitstream access, imposition of WLR, pro-competitive changes in the reference interconnection offer (RIO) and reference unbundling offer (RUO). UKE also notified to the Commission a number of draft measures following the market analyses process and adopted some final decisions, finding a lack of effective competition in all the markets (except for international roaming) analysed so far and imposing regulatory remedies on the undertakings designated as having significant market power.

However, as UKE did not finalise the first round of market analyses in 2006, the Commission launched an infringement proceeding in this regard. As of November 2006 the analyses of the following relevant markets still remained to be notified: (i) minimum set of leased lines, (ii) wholesale transit services in fixed networks, (iii) wholesale trunk segments of leased lines and (iv) wholesale mobile access and call origination.

With regard to remedies, UKE tends to apply quite generally defined remedies possibly requiring further specification through dispute-settlement proceedings. This affects transparency and legal certainty for market players.

**MARKET AND REGULATORY DEVELOPMENTS**

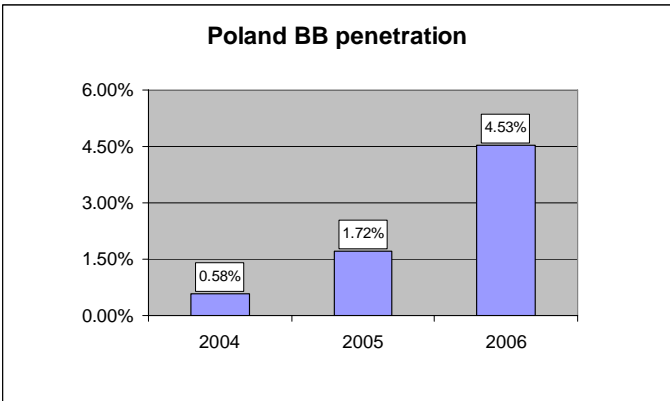
As a result of the growing popularity of PC-based VoIP services, advancing fixed to mobile substitution and steadily decreasing prices, revenues on the fixed telephony market have been falling in recent years.

Some mobile-fixed convergence can be observed on the Polish market, with at least one mobile operator offering telephony services also at a fixed location (at prices comparable with the fixed incumbent’s offers) while using SIM cards, and another mobile operator announcing plans to offer from 2007 a converged service allowing its customers to call at “fixed rates” while at home and standard “mobile rates” while away. In addition, at least one mobile operator was intending to enter the fixed market and sign appropriate access and interconnection agreements, including WLR, in an attempt to compete better with the fixed incumbent that also has its fully owned mobile subsidiary. Some alternative fixed operators are negotiating MVNO agreements with the mobile operators.

The reporting period saw an increase in the number of cable operators offering triple play, including voice and broadband access, in addition to standard TV services. At least two fixed line operators (including the incumbent) started to offer IPTV services on a commercial basis.

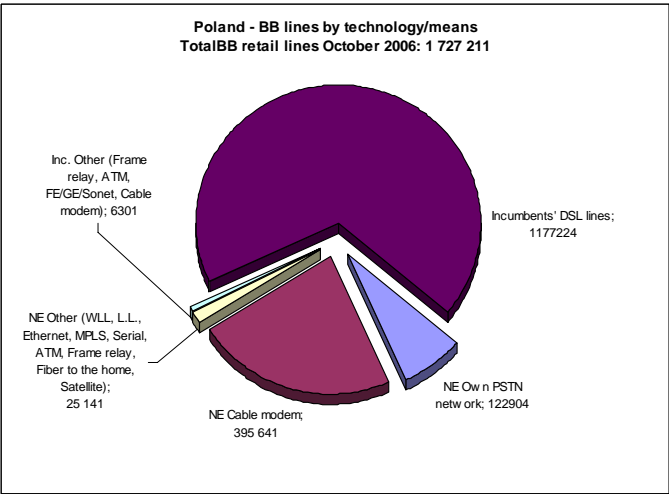
**Broadband**

*Market situation*



Broadband penetration in Poland, at 4.53% in October 2006, despite growth by almost three percentage points when compared to October 2005, remains among the lowest in EU25 and much below the EU average (at 15.7%). While continuing its intensified marketing campaign for its DSL offer, the fixed incumbent further increased its market share in the retail broadband market, which in October 2006 stood at

69% compared to 63% in October 2005 and 46% in January 2004. It appears that several factors may contribute to the low penetration rates in Poland. Fixed line telephony penetration is low (and does not cover many rural areas). The price of retail broadband services remains relatively high, especially considering the average disposable income of Polish households. As a consequence, a considerable number of internet users resort to dial-up connections (25% in 2005, according to the regulator).



Local loop unbundling was not functioning in Poland and bitstream access has only recently been imposed on the incumbent. In addition, while cable is present in particular in big cities, it may not currently be upgraded to offer internet.

Competitors to the incumbent's broadband offering include cable operators (almost 400 000 lines accounting for more than two thirds of alternative operators' broadband subscribers), but also the DSL offerings of some fixed operators that build their own infrastructure and a limited number of lines using other technologies.

*Regulatory issues (including market analyses and remedies)*

In May 2006 UKE imposed ex officio on the incumbent operator a reference offer for the bitstream access (based on the open network provision (ONP) regime). The price on the wholesale level was established based on an EU benchmark and using retail minus methodology with an average rebate of 51%. By November 2006 five wholesale agreements had been signed between alternative operators and the incumbent on the basis of this reference offer and further agreements were being negotiated. The first broadband lines based on bitstream access have been activated in November 2006.

Also in May 2006 UKE obliged the incumbent to publish the reference offer for leased lines, lowering the average wholesale prices by over 20% (in a move to average them with the EU-15 benchmark).

The reference offer for local loop unbundling was changed ex officio by UKE in October 2006 in order to significantly lower the prices for full and shared access (and base them on EU benchmark) as well as provide for better and more detailed regulation of co-location and other equally important elements of the successful co-operation between operators. Despite that, no local loop had been unbundled until November 2006, when this report was being written.

UKE notified the draft analysis of the relevant markets for wholesale broadband access (August 2006), terminating segments of leased lines (October 2006) and local loop unbundling (June 2006). On all these markets UKE designated the fixed incumbent as an SMP operator and proposed to impose on it inter alia obligations to meet reasonable requests for access at non-discriminatory and cost oriented conditions. The final decisions in this regard had not been adopted until November 2006.

In an attempt to ensure better competitive conditions on the retail market for internet access, UKE ordered the fixed incumbent to unbundle the retail provision of DSL connections from the provision of line rental. UKE also seems eager to regulate the retail prices the incumbent charges for broadband connections, and has already imposed fines on the incumbent for the lack of transparency and cost orientation of its broadband offerings, as well as for not submitting its retail broadband tariffs for prior approval. The Commission is looking into the matter.

## Mobile markets

### *Market situation*

The mobile penetration rate reached 91% in October 2006 following a significant growth of 20 percentage points in the reporting period, but it is still below the EU average. Three operators are currently providing mobile services – voice and data (including 3G services in highly populated areas). All three operators have similar market shares (34.2%, 33.8% and 32%: based on subscribers, October 2006).

With regard to retail price trends on the mobile telephony market, users of post-paid services were able on average to enjoy further reductions offered in new tariff packages. By contrast, the pre-paid segment, after a significant decrease in tariffs in 2004, saw no far-reaching reductions in 2005.

The fourth network operator assigned 3G frequencies in May 2005 (to be used from July 2006) encountered some difficulties deploying masts, reportedly due to the stringent requirements of the environmental and construction laws, and decided to postpone the start of its commercial activities until the first quarter of 2007. This operator also signed a national roaming agreement with one of the current mobile operators that will allow the operator to offer services also in areas where it would not yet have its own network.

One frequency slot (with 3x33 duplex channels) in the 1800 MHz band remains to be assigned, as two tenders were unsuccessful in 2005. The regulator is currently working on another tender for these frequencies, possibly with lighter conditions, and is considering not imposing any restrictions with regard to the technology to be used.

In July 2006 an undertaking active on the broadcasting content market signed an MVNO agreement with one of the mobile network operators and aims to start its commercial MVNO operations in 2007. By November 2006 all mobile network operators were negotiating several other MVNO agreements with potential new entrants.

### *Regulatory issues (including market analyses and remedies)*

In April 2006, UKE had notified the draft measure on the market for mobile access and call origination, where it found a lack of effective competition and designated all three mobile operators as having a joint SMP position and proposed to impose inter alia non-discriminatory MVNO access obligation at cost oriented charges. However, in June 2006 UKE withdrew this notification and the market analysis remains to be re-notified.

In spite of the lack of the relevant market analysis, the regulator was considering imposing an MVNO access obligation on one of the mobile network operators. The NRA is of the opinion that its powers with regard to dispute resolution would provide a sufficient basis for imposing the obligation in question. The Commission is looking into the matter.

In April 2005, UKE notified the draft measure in the market for mobile call termination where it designated all three mobile operators as having SMP in their respective networks and proposed to impose inter alia price control for call termination rates to be based on the cost incurred, with the possibility for the regulator to verify the accuracy of the rates adopted by using EU benchmarks or by other, not specified, methods. This fails to provide adequate transparency and legal certainty for market players.

In July 2006 the regulator published its position on mobile termination rates (MTRs), indicating that they should be decreased by 34.5% on average. In October 2006 the regulator announced that it would *ex-officio* set the level of MTRs through a decision. This was despite an earlier proposal from the mobile operators to reduce the MTRs by 20-30% in a manner that would, in their opinion, reflect the costs incurred.

## **Fixed**

### *Market situation*

The incumbent remains by far the largest player for fixed telephony and has 75.9% of the fixed calls market (as at December 2005, in terms of revenues, for all type of calls). Since December 2004 the incumbent's share of the market for all calls has decreased by seven percentage points.

As at October 2006, 43 undertakings were registered as fixed operators having their own local access network and whose market share in terms of subscriber lines stood at 10%. However, only a few of the alternative operators are in a position to compete with the incumbent operator on a larger scale in more than one area and, by December 2005, only two alternative fixed network operators had a market share above 3% (4.05% and 6.44%).

A number of service providers are active, mainly in the long-distance, international and fixed-to-mobile calls market, offering a service based on carrier selection and/or carrier pre-selection (CS/CPS). At least one big international player offering its CPS services for all calls (to fixed and mobile networks) was relatively successful in gaining some market share (6.07% in 2005 in terms of revenue). Obligations recently imposed on the incumbent with regard to WLR provision could benefit the further development of service-based competition.

A number of cable operators in Poland started offering telephony services and, according to cable operators, there was a significant growth in 2006 in terms of the number of subscribers to this service. However, their overall market share remains marginal.

### *Regulatory issues (including market analyses and remedies)*

So far there is no accounting model for the incumbent's cost verified by the independent auditor and subsequently accepted by the regulator as the basis for the cost orientation of the measures imposed. The incumbent's recent cost-calculation report was rejected by the regulator in August 2006, after the auditor gave an unfavourable opinion. At the same time UKE indicated that it would continue using benchmarks as the best available proxy for cost-oriented prices.

In July 2006, UKE introduced important changes to the reference interconnection offer of the incumbent, lowering significantly the level of the interconnection charges. The decision also introduced a capacity-based interconnection with a flat rate for a defined capacity of traffic exchange.

Also in July 2006 UKE imposed, in the context of a dispute resolution between the incumbent and one alternative operator, a WLR obligation on the incumbent, which will supplement the CPS service provided by the alternative operator. The incumbent has to offer WLR with a 47% rebate from its normal retail price for line rental. The decision was based on the transitional measures and a wide interpretation of the ONP regime, and not on the results of the relevant market analysis. However, the final measure imposing regulatory remedies on the

wholesale market for call origination (including an obligation to offer WLR) had been adopted by the regulator shortly before. The Commission is looking into the matter.

In the second half of 2006, UKE notified to the Commission draft measures and the analysis of all the fixed retail markets as identified by the Commission Recommendation. UKE proposed to designate the incumbent as having SMP in all markets notified and to impose on the operator a full catalogue of retail remedies, including cost orientation of prices and the obligation to submit them for the regulator's prior approval. With regard to markets for access to the public telephone network at a fixed location for residential and for non-residential customers, UKE suggested including xDSL lines in the product market definition. At the time of writing this report, the Commission had initiated a second phase to further analyse these notifications.

In September 2006 UKE notified the analyses of the fixed call termination markets for alternative operators active on that market (29 operators), and the draft measures proposing to designate all of them as having SMP in their respective networks and to impose remedies, including non-discriminatory access and transparency. UKE is not proposing to impose cost-orientation obligations on the alternative operators.

According to the relevant provision of the Polish law, it appears that having SMP in any market (including the call termination market) automatically obliges an SMP undertaking to provide CS/CPS services. Thus, alternative operators would be obliged to offer CS/CPS services. Nonetheless, the NRA does not in practice request the provision of CS/CPS services from operators not having SMP in retail access markets. The Commission is looking into the matter.

## **Broadcasting**

### *Market situation*

Cable penetration in Poland stands at about 22% and is concentrated in big cities. Out of more than 400 cable operators registered in 2005, only a few had a subscriber base greater than 100 000 and only one operator has more than one million subscribers. Digitisation of the network is progressing slowly, and in the third quarter of 2005 there were only 45 000 digital cable subscribers in Poland<sup>102</sup>.

A new digital satellite platform started commercial activities on 12 October 2006. There are currently three satellite digital platforms available in the Polish market which offer a variety of content. In 2005, 17% of Polish households were receiving satellite signals (about 50% of which were capable of receiving digital signals)<sup>103</sup>.

According to 2005 data<sup>104</sup>, over 60% of households in Poland rely on terrestrial broadcasting as their main means to receive (analogue) TV broadcasts. Digital terrestrial TV is currently available only in a few locations and on a trial basis. Following the adoption of a switchover strategy by the Polish Government in May 2005, the frequencies for the first two multiplex operators with national coverage still remained to be assigned by November 2006. In

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<sup>102</sup> Datis 2006: "Digital television data; EU market for digital television".

<sup>103</sup> *ibid*

<sup>104</sup> *ibid*



accordance with the mentioned strategy, Poland is planning to switch off analogue transmission by the end of 2014.

Two operators are offering IPTV services using DSL-enabled networks (one alternative operator that was the first to offer IPTV, and the incumbent operator that started commercial offerings in the second half of 2006).

#### *Regulatory issues (including market analyses and remedies)*

Following national consultation and notification in July 2006, UKE adopted a final measure concerning the market for broadcasting transmission services in November 2006. UKE found lack of effective competition in that market and designated the subsidiary of the fixed incumbent as having SMP. The regulator imposed remedies on the SMP operator including non-discriminatory and cost-oriented access to its network for other operators. No access for broadcasters has been granted, even though the regulator identified a number of competition problems in relations between the SMP operator and broadcasting entities. However, it appears that the definition of access in the Polish law covers only undertakings providing electronic communications networks and/or services, and may not be applied to content providers. The Commission is looking into this matter.

### **Horizontal regulation**

#### *Spectrum management*

Poland appears to have implemented three out of four Commission Radio Spectrum Harmonisation Decisions (2004/545/EC in the 79 GHz frequency band; 2005/513/EC in the 5 GHz band and 2005/50/EC in the 24 GHz band) in the ministerial ordinance of 24 October 2005 concerning the use of radio equipment not requiring an individual authorisation. Decision 2005/928/EC in the 169 MHz range is expected to be implemented in the first quarter of 2007 through an amendment to the aforementioned ordinance.

The Polish authorities are debating whether to establish a harmonised strategy for spectrum management, covering a number of issues ranging from facilitating access to frequencies by making the spectrum bands licence-free whenever possible, to spectrum trading (the transfer of spectrum usage rights between parties in a secondary market), and liberalisation (the relaxation of restrictions on services and technologies associated with spectrum usage rights and the possibility of reconfiguring usage rights).

#### *Administrative charges*

Cable operators are subject to an additional annual fee of 1.5% of their revenues from providing access to TV content and they voice concerns that this is allegedly in breach of the regulatory framework. The Commission is looking into the matter.

#### *Rights of way and facility sharing*

Operators complain of cumbersome and not always transparent procedures as far as rights to install facilities on public and private land are concerned. In addition, local authorities appear to impose taxes on the telecommunications infrastructures and each authority appears to have broad discretion in deciding on the levies. The Commission is looking into the matter.

## **THE CONSUMER INTEREST**

### **Universal service**

The fixed incumbent operator was designated in May 2006 as the universal service provider that has to guarantee the provision of all universal service elements throughout Polish territory.

### **Directory services and directory enquiry services**

There is still no comprehensive directory service and directory enquiry service available in Poland that would include fixed and mobile subscribers. In October 2006 the Commission referred this case to the Court of Justice.

### **Emergency services (112)**

The single emergency number “112” has been available for all end-users since September 2005, but there appear to be some deficiencies regarding caller location when calls are made from mobile phones.

### **Number portability**

Number portability for both fixed and mobile numbers became available in 2006 (from January for the fixed and mobile post-paid subscribers and from June for mobile pre-paid subscribers, as in the latter case changes to the law were required). In August 2006, UKE fined three mobile operators and the fixed incumbent for applying to subscribers overly high direct charges for portability that were deemed to act as a disincentive to making use of number portability.

### **Must-carry**

According to the law on media, cable operators have to introduce as first national public programmes. Depending on the region, the must-carry obligation accounts to 3 up to 6-8 programmes to be carried by cable operators – normally for no remuneration on either side.

### **Consumer complaints and out-of-court dispute resolution**

Out-of-court disputes involving consumers may be dealt with by the consumer arbitration court established by the 2004 Telecommunications Act or by UKE in a mediation procedure. In 2005 and 2006 there were about 1 000 complaints on the arbitration court’s agenda, and about 4 000 cases were referred to the NRA for mediation (in 2005, 21% of cases brought were amicably resolved)

# PORTUGAL

## INTRODUCTION

Some progress was made in the broadband market during the reporting year. The regulator was active in reducing the prices paid by alternative operators for using the incumbent's network, and alternative operators increasingly invested in local loop unbundling (LLU). As for the fixed market, the number of subscribers using an alternative operator for direct access is significantly higher than the EU average, due to the combination of cable providers, operators investing in LLU and the provision of fixed telephone services using mobile frequencies.

Efforts in 2006 by the regulatory authority to increase the limited competition in the market, in the face of the Portuguese incumbent operator owning the copper and main cable networks, started to have some impact. However, the incumbent operator remained dominant in all markets analysed, except the fixed transit one.

In February 2006 a smaller operator launched a takeover bid for the incumbent and its cable subsidiary. The bid was conditionally approved by the Portuguese national competition authority (NCA) in late December 2006. This transaction may have a major impact on the market situation.<sup>105</sup>

## REGULATORY ENVIRONMENT

### Main regulatory developments

The NRA was efficient in conducting its market analyses and in taking final regulatory measures, adopting a full range of remedies to be imposed on incumbent operators. However, existing regulatory measures had limited impact and did not result in fully effective competition in the Portuguese markets. Some of the obligations imposed lacked sufficient detail, which has delayed effective implementation of the measures. Some regulatory measures introduced by the regulator are beginning to produce results, such as LLU or wholesale line rental (WLR). The effectiveness of the appeal mechanisms has been raised as an issue, although appeals do not have a suspensive effect, except for decisions imposing fines or sanctions.

### Organisation of the NRA

The national regulatory authority (NRA) provided continuous assistance to the NCA, AdC, in its relevant areas of competence throughout the lengthy analysis of the above-referred bid. When assessing a merger in a regulated sector such as electronic communications, the Portuguese NCA must consult the relevant sector regulator, in this case ICP-ANACOM. It should be noted that this bid procedure may be very relevant from a regulatory perspective and as regards the number and nature of the remedies imposed.

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<sup>105</sup> Following the incumbent General Shareholders' meeting on 2 March 2007 where one of the necessary conditions for the takeover bid to succeed was not approved, the takeover bid failed. However, the situation described here is that at 31 December 2006.

The appeals procedure continues to be extremely long, although appeals do not have the effect of suspending NRA decisions, except in cases where fines or sanctions are imposed. Some appeals lodged with the administrative courts in 2001 have been pending for almost six years. However, the new government included reform of the judicial system among its priorities.

Although a dispute resolution mechanism is provided for by law, operators do not tend to use this formal mechanism offered by the NRA, preferring to use letters of complaint and more informal inputs to report their positions to the regulator. Court conciliation mechanisms are not an option for operators as they are quite complex.

Alternative operators also raised concerns about the NRA still being reluctant to impose heavy fines on the incumbent, some of which have been reduced on several occasions following appeals to the courts, even when it has been found guilty of not applying the regulator's decisions.

### **Decision making**

Since the last notifications in March 2005, no further notification has been submitted by the Portuguese authorities regarding the three remaining relevant markets (mobile access, wholesale international roaming and broadcasting transmission services markets). The Commission recently started an infringement proceeding against Portugal for failure to notify all the market analyses in the Recommendation, such notification being considered essential if the objectives of the framework are to be met. The NRA expects to finalise the first round of market analyses by March 2007.

With regard to the relevant markets, the NRA found the incumbent to have significant market power (SMP) in all but one of the analysed markets, and imposed a full range of obligations, including some measures such as a standstill period to prevent win-back practices or capacity-based interconnection. It should be noted that the incumbent operator owns the two nationwide networks (copper and cable).

Existing regulatory measures, such as LLU or WLR, are now beginning to have some impact on the limited competition of certain Portuguese markets. A number of measures were not implemented quickly enough, such as the publication of the leased lines reference offer which took place one year after the relevant markets were reviewed; or the offer for WLR which became available one and a half years after it was mandated and which needed a further four months to be implemented to a certain degree, since some of the obligations imposed were not sufficiently detailed, and the need for additional regulation has delayed effective implementation of those measures. Other remedies had no real effect on the market, such as shared access or regulated ATM bitstream. During the past year the NRA was active in revising most of the various reference offers, improving the specific conditions for access, price and other obligations, such as the offers for LLU, bitstream, leased lines and ducts.

### **MARKET AND REGULATORY DEVELOPMENTS**

Since February 2006, when a smaller Portuguese operator launched a takeover bid for the incumbent and its cable subsidiary, the market situation has been influenced by the bid procedure as it may be significantly affected by the outcome of that transaction. Both companies are integrated operators with activities in fixed communications, mobile communications, internet access and media sector. In fact, the bidder is the major competitor in the fixed voice market, the third player in the mobile market, and the second player in the broadband market. The bid was conditionally approved by the Portuguese NCA, AdC, on 22

December 2006. It should be noted that the Portuguese Government still holds a small participation in ownership and special voting rights (“golden share”) in PT for this kind of decision. An infringement case is pending in this regard.

AdC imposed, as a condition, the sale of one of the incumbent’s two fixed networks, without specifying which. The scenario may vary depending on which divestiture option the bidder takes. In the event of divestiture of the cable network, AdC and ICP-ANACOM would approve a model for functional vertical separation of the copper fixed network submitted by the bidder. Should the takeover bid not succeed, the incumbent has already announced its intention to divest its stake in its cable subsidiary. In both scenarios, separate ownership should prove beneficial to competition in the Portuguese fixed and broadband market by creating incentives to invest in fixed network upgrades and to compete in developing new services.

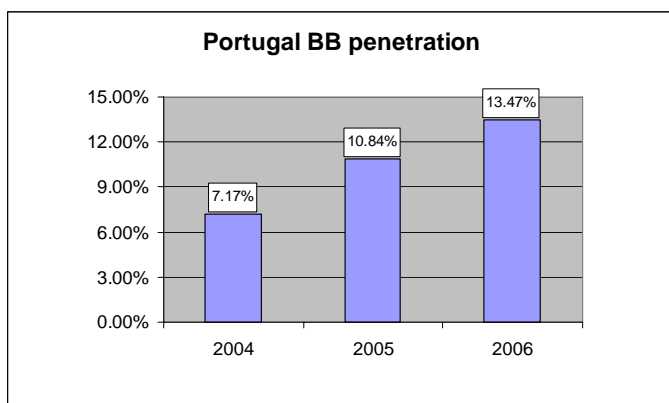
Moreover, the situation in the mobile market may drastically change following the outcome of the takeover bid. Should the takeover succeed under the envisaged conditions, Portugal will become the first Member State reducing from three to two players in the market, with the leading operator having an estimated 60% of the market share, well above the EU average. There are further conditions laid down in the NCA’s final decision, such as retail mobile regulation (price cap) or extension of the obligation of access to ducts to encompass all ducts owned by the bidder, which will also need to divest certain content assets.

ICP-ANACOM granted a number of temporary authorisations for carrying out technical trials of mobile digital television (DVB-H). However, frequencies are not expected to be assigned for this particular service until analogue switch-off takes place.

ICP-ANACOM adopted a report in February 2006 following the consultation on VoIP services in 2005. In addition to geographic numbers, the regulator allocated a numbering range for nomadic VoIP services, further specifying that those numbers come under number portability and that routing of calls to 112 should be ensured.

## Broadband

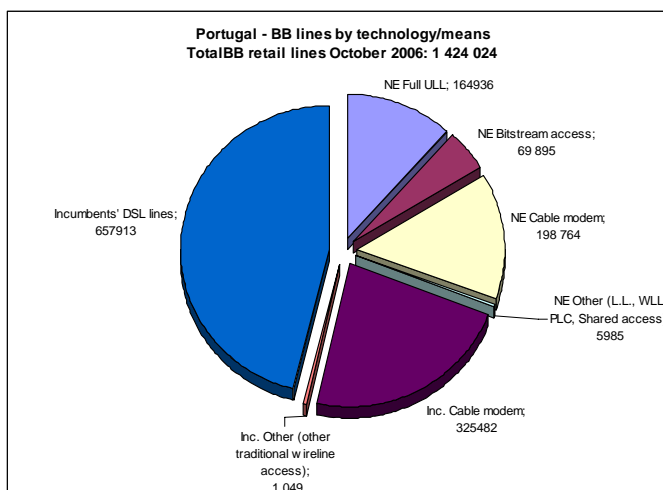
### *Market situation*



(62.7%), cable (36.8%) is still a significant means of access.

The Portuguese broadband market is showing the first signs of growing competition, with new entrants increasingly investing in LLU. As at 1 October 2006 broadband penetration (13.47%) was still below the EU average (15.69%). The number of broadband lines reached 1.42 million in Portugal, a year-on-year increase of 24.7%. Although DSL constitutes a higher percentage of broadband lines

Since the beginning of 2005, the incumbent's retail broadband market share has been declining and it obtained just some 40% of the new subscriptions in the third quarter of 2006. However, the incumbent still holds one of the highest shares among incumbents in the EU (69.1% of the overall broadband market and 73.7% of the DSL market). If the takeover entails disposal of the cable subsidiary, the new entity would control almost 87.7% of the DSL retail market.



Following the improvement of regulatory conditions in Portugal, major investment is being made by

alternative operators in fully unbundled lines (shared access is still not used) for the provision of broadband services. The number of unbundled local loops exceeded 164 000 unbundled lines in October 2006 compared to 16 000 at the beginning of 2005, which is an encouraging trend.

Consumers have benefited from diversification of broadband offers. In relation to broadband availability, all the incumbent's local exchanges were equipped to provide ADSL services nationwide as of June 2006. There are different triple play offers on the market, including widespread service over cable, one service based on wireless local loop (WLL) with limited coverage and one service over ADSL from an alternative operator. The incumbent's triple play offer is still in the trial phase.

### *Regulatory issues*

Since the first version of the reference offer was published in 2000, the regulator has been active in introducing a number of changes to the incumbent's bitstream offer (known as Rede ADSL PT), such as establishing conditions for the introduction of new speeds up to 20Mbps, decreasing prices (last one voluntarily proposed by the incumbent), regulating the migration of customers or increasing the number of interconnection points (ATM bitstream access). Although market players had been requesting an ATM bitstream product, they seem not to be attracted by the offer, available since 2004. While the number of bitstream accesses is still growing and accounts for a very large part of the ADSL accesses, alternative operators showed an increased preference for unbundling products. To avoid margin squeeze problems, the regulator imposed a retail-minus obligation on the incumbent.

With regards to LLU, the NRA intervened through different modifications of the reference unbundling offer (RUO), mainly by considerably reducing the fees for fully unbundled loops in April 2005, followed by further reducing the monthly fees for fully unbundled (from €9.72 to €8.99) and for shared access (from €2.95 to €2.51) in April 2006. LLU prices continue to be below the EU average, although certain issues remain to be solved in relation to information on the technical eligibility of the incumbent's lines, high fees for line testing and service level agreements (SLAs).

## Mobile markets

### *Market situation*

Mobile penetration in Portugal (113% as at October 2006) continues to be higher than the EU average (103%), with the third highest proportion of prepaid customers in the EU (80%). The incumbent's mobile subsidiary still leads the market with a 46% market share, the second operator increased its market share to 40% and the third operator's decreased to 14%. Mobile operators launched upgraded 3G broadband access services (HSDPA) and claimed that the number of mobile broadband customers was approximately 174 000 in July 2006, which represents 1.6% of the population. According to information from the NRA, traffic originated in mobile networks already accounted for 60% of the overall voice traffic in 2005<sup>106</sup>.

In its final decision on the merger, the NCA gave its consent subject to the GSM and UMTS frequencies of one of the mobile operators being returned to the NRA, infrastructure being sold to a potential third mobile network operator (MNO), access being granted to mobile virtual network operators (MVNOs) and the impact of network externalities being reduced, which may alleviate the impact on the mobile market. Moreover, the NCA has also planned to introduce a price cap mechanism and a certain control of offers at retail level if the takeover bid succeeds.

Service providers signed the first agreements with the third MNO during 2006. Two service providers started reselling commercial services, and the other may follow shortly. The arrival of these new players into the market could drive competition on the mobile market, though the effect in the market remains to be seen. Some MNOs appear to be currently negotiating with undertakings interested in a more infrastructure-based business model.

### *Regulatory issues*

At the beginning of 2005 the regulator introduced a glide path to reduce the high fixed-to-mobile termination rates (€0.185 for the two biggest operators and €0.2779 for the smallest) and mobile-to-mobile termination rates (€0.187) to a converged target of €0.11 for all mobile networks in October 2006. ICP-ANACOM is currently analysing the markets to assess the need for further reductions of mobile termination rates, which are now at the EU average. The NRA has not yet analysed mobile access (market 15 of the Recommendation). However, the obligation to provide access to MVNOs is one of the conditions considered for the incumbent in the NCA's draft decision on the takeover.

## Fixed

### *Market situation*

Despite the gradual loss of fixed voice market share, this market is still dominated by the incumbent, which still had 77.4% of the market in terms of revenue in December 2005 compared to 79.40% the previous year. As at July 2006, 15.2% of subscribers were using a provider other than the incumbent operator for direct access, compared to 8% one year earlier. The use of alternative operators is significantly higher than the EU average (10.4%), due to the combination of cable providers, operators investing in LLU and the provision of fixed telephone services using mobile frequencies.

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<sup>106</sup> ICP-ANACOM's Annual Report 2005.

### *Regulatory issues*

By decision of 21 April 2006, ICP-ANACOM reduced by around 5% the average interconnection prices applicable under the 2006 reference interconnection offer (RIO). Nevertheless, they still remain slightly above the EU average for all types of interconnection. In June 2006 the NRA approved the RIO modifications in order to introduce capacity-based interconnection, in addition to the metered interconnection model. This positive measure, once implemented in the Portuguese market, would allow alternative operators to compete better with the incumbent's retail offers through increased diversification. The regulator examined the incumbent's proposal in compliance with the new requirements, and in December 2006 the NRA issued a final decision, with further modifications to be introduced by the incumbent.

The first offer for WLR (known as ORLA) was published in January 2006, and further updated by a new offer published in November 2006, enabling alternative operators to provide access together with telephone services. Although there were almost 120 000 accesses under the WLR offer as at October 2006, implementation has proven to be problematic. A number of issues were indicated as being barriers to effective implementation, such as the exclusion of ISDN access, separate invoicing for some services by the incumbent operator, and the conditions for denial of service suspension by the incumbent in the event of non-payment. In December 2005 ICP-ANACOM intervened, by banning retail offers in which the incumbent bundled subscription and calls until certain improvements in relation to WLR are achieved.

In April 2006 the price for CPS activation was reduced to €5.10. Finally, in May 2006, the NRA reduced the standstill period imposed on the incumbent, which now starts counting as from the pre-selection activation request, from six to four months on the basis of the improved competitive market situation and prohibited contacts with pre-selected customers for the incumbent's promotional campaigns during that period. The number of CS and CPS lines is quite stable (499 000 CPS customers and 92 500 CS customers as at 31 March 2006).

In July 2005 the NRA obliged the incumbent to publish a leased lines reference offer, finally adopted in June 2006 with further price reductions. The regulator stated that the price of leased lines had decreased by 18% on average, and monthly rental fees are one of the lowest in the EU. Alternative operators still complain about repair time and delivery times. Following market analysis, the obligation concerning collocation of equipment in the submarine landing stations was not imposed, and so operators need to rent backhaul services to the incumbent up to a single secured point of interconnection, which is accessible for all operators. Moreover, the NRA was analysing the tariff schedule for the retail fixed telephone service proposed by the incumbent which falls under a price-cap obligation.

Some operators introduced a complaint to the NRA concerning phones installed for free by the incumbent for exclusive use via the incumbent's phone cards. In November 2006 the regulator started action against the incumbent over this complaint.



## **Broadcasting**

### *Market situation*

There are different platforms in Portugal competing for the provision of broadcasting transmission services<sup>107</sup>: cable (27.1%), satellite (10.4%), analogue terrestrial television (62.5%) as well as the recently launched operations based on DSL and WLL. The launch of broadcasting television services over mobile platforms is planned for the future. The cable network is a widely spread platform covering three out of four households, in addition to the two analogue terrestrial networks.

The policy for Digital Terrestrial Television (DTT) is being reevaluated in Portugal, following revocation of the first DTT licence in 2003. ICP-ANACOM expects to launch a public tender for assignment of frequencies for DTT in the first half of 2007, both for free-to-air and paid channels, although there is no concrete date for the tender or for the launch of DTT services yet. The incumbent operator announced the divestiture of its cable unit in order to be able to participate in the tender. Analogue switch-off will tentatively occur between 2010 and 2012 in Portugal, depending on the evolution of the DTT coverage achieved, with a regionally staggered calendar.

### *Regulatory issues*

The NRA has not yet notified the market for broadcasting transmission services (market 18 of the Recommendation), though it expects to notify it to the Commission shortly. It should be noted that the incumbent, through the concession granted to it until 2025, has obligations concerning provision of the broadcasting and distribution service of the telecommunications broadcast signal, as well as regarding access to masts. The regulator recognised that it cannot withdraw the existing obligations in this market and that market evolution might not justify it at this moment. The Commission services are looking at this issue.

## **Horizontal regulation**

### *Spectrum management*

According to the national frequency allocation plan (known as QNAF), all rights of use for frequencies are to be transferred, subject to the NRA's approval in accordance with the terms established under national law. The Portuguese authorities are, at national and European level, currently studying options for a general policy on secondary spectrum trading.

Portugal took measures to implement three out of four Commission Decisions<sup>108</sup> adopted under the Radio Spectrum Decision harmonising spectrum in specified bands, and the QNAF was accordingly updated. The national frequency allocation table was updated in July 2006 and is published on the NRA's website. Decision 2005/928/EC should be included in the next review of QNAF to be published early 2007.

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<sup>107</sup> Household penetration as of 3Q2005. Daxis 2006: "Digital television data: EU market for digital television".

<sup>108</sup> Commission Decisions 2005/513/EC of 11 July 2005; 2005/50/EC of 17 January 2005; and 2004/545/EC of 26 July 2004.

During 2006 ICP-ANACOM renewed the licence of one mobile operator, and is currently in the renewal process for the remaining operators. On 23 November 2006, the regulator modified the existing rights of use for frequencies for operation of WLL systems previously allocated to the incumbent and several alternative operators with national coverage, resulting in a more geographically segmented coverage and the freeing of some spectrum. In addition, following some requests for WiMAX trials and given the high potential of the frequency band used by the incumbent, the NRA launched a public consultation in early December on the introduction of broadband wireless access.

#### *Rights of way and facility sharing*

In Portugal the fee for rights of way for fixed networks consists of a percentage (up to 0.25%) of each bill issued by operators to subscribers in the corresponding municipality. The incumbent is concerned by the fact that it is the operator charging most of its clients that municipal fee.

ICP-ANACOM imposed on the incumbent, as holder of a concession contract, the obligation to provide a reference offer for access to ducts and associated infrastructure (known as ORAC) in 2004, whilst previously the regulator had intervened to guarantee access to ducts on an ad hoc basis. Since then the regulator has approved a number of decisions on the amendments to be introduced in the reference offer. The most recent changes approved in October 2006 concern the accreditation system for installation and maintenance work and a database with information on ducts and other infrastructure. Although implementation of the ORAC took a long time, ICP-ANACOM is confident that the reference offer will become increasingly operational.

#### *Authorisations*

In 2005, the NRA authorised one mobile operator to use mobile frequencies for the provision of fixed telephone services under certain conditions (e.g. using numbers for fixed services and a limited number of network cells). The incumbent complained about this decision to the regulator, and brought it in before the courts. In October 2006 the regulator authorised a second mobile operator to provide similar services, where customers are able to use their phones as a fixed line. The Commission services are looking further at this issue.

## **THE CONSUMER INTEREST**

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

The NRA set up an online observatory of mobile prices, which is a practical tool as it can be consulted by consumers to simulate their traffic profiles. The NRA is also studying the possibility of upgrading it for broadband services. After the regulator received consumer complaints related to tariff transparency for international roaming tariffs, the NRA included on its website information on the use and billing of roaming services abroad.

ICP-ANACOM is preparing to extend the Regulation on Quality of Service approved in June 2005 to cover undertakings providing internet access services; it currently applies only to fixed operators. Moreover, in March 2006 the NRA approved the quality of service parameters and the performance objectives for universal service provision. The universal service provider must provide information on the quality of service to consumers before a contract is signed, quarterly to the regulator and yearly to the general public.

## **Universal service**

Under the current concession contract the incumbent operator keeps the universal service obligation until 2025, and an infringement proceeding is currently pending for this. The Portuguese authorities have so far not provided concrete evidence that the Portuguese Government is planning to launch a new universal service designation process before the concession expires.

So far the regulator has always rejected the incumbent's claims for compensation for the cost of the universal service: the requests prior to 2001 on the basis that the market had not been fully liberalised, and the subsequent ones on the basis that the data provided were incomplete. In October 2006 the universal service provider submitted revised costs for 2001 and 2002, together with estimated costs for 2003, which the regulator is currently analysing.

## **Directory services and directory enquiry services**

A comprehensive directory is still not available in Portugal as the data concerning one mobile operator are missing, and therefore the Commission started an infringement proceeding. In March 2006, a national court suspended a regulator decision of December 2003 concerning the provision of subscriber data to the universal service provider, and ruled that that mobile operator should agree with the universal service provider on the conditions for supplying subscriber information, otherwise the NRA should lay down the conditions. Nevertheless, the legal case is still pending following an appeal by the regulator against that ruling.

## **Emergency services (112)**

Caller location information is not available to emergency services for calls from mobile phones, and therefore the Commission started an infringement proceeding. No decision has been taken so far in relation to the technical solutions the mobile operators submitted to the NRA. The situation might change following the adoption of an order by the Ministry of Internal Administration on 13 October 2006 and the first meetings among the emergency authorities, the mobile operators and the regulator.

## **Number portability**

In May 2006 the regulator prohibited the charging of an additional monthly fee paid by customers porting numbers to a certain fixed provider, something considered discriminatory. Normally, the retail price for porting fixed numbers is between zero and €48, whilst porting mobile numbers is either free or convertible into a number of call minutes. At wholesale level the maximum price for a ported number has been reduced from €15 to €13.6 with certain discounts per volume.

Moreover, fixed number portability is starting to impact on the market and fixed ported numbers have almost doubled in one year. On the other hand, it seems that Portuguese mobile subscribers are reluctant to change operator by porting their number, and operators do not seem to actively promote that option. This, together with the fact that many subscribers have locked terminals or have more than one provider, leads to low use of mobile number portability.

## **Must-carry**

ICP-ANACOM is responsible for regulating transmission operators, in particular as regards imposing must-carry obligations, but it has not imposed any yet as the Media Regulatory Authority (ERC), established in November 2005, has not so far reviewed the channels which would enjoy must-carry status. The current must-carry obligations imposed on cable operators to provide two national public service channels and two regional (one in each of the outermost regions of Azores and Madeira) derive from the previous regime. The awarding of DTT frequencies, expected for early 2007, may include further must-carry obligations.

## **Consumer complaints and out-of-court dispute resolution**

The NRA has created a specific unit dealing with complaints and requests for information, which should be fully operational in the first half of 2007. However, the regulator is not competent to settle conflicts between end-users and operators.

# SLOVENIA

## INTRODUCTION

Most economic indicators point to market and competition growth in Slovenia during 2006. The market experienced significant broadband growth. Competition between operators and service providers in the mobile market was more balanced than in the fixed market. Consolidation activities included the takeover of the fixed alternative operator by the owner of the new mobile entrant, a possible step towards convergence.

Following the NRA's completion and notification of all relevant market analyses and its attempts at rigorous supervision of remedy implementation, the electronic communications market in Slovenia now seems to be on the right track, except for the fixed telephony market which remains largely non-competitive. It seems, however, too early for the NRA to reduce the level of market regulation.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Overall there were some positive changes in the regulatory environment in 2006. Since all relevant market reviews had been completed, the NRA focused on supervising implementation of remedies, thereby manifestly facilitating the growth of alternative operators. This made it possible for the Commission to close the infringement proceedings opened due to the failure to maintain the SMP obligations under the transitional regime.

The amendment to the Electronic Communications Act (ECA) was adopted in late autumn and took effect on 27 December 2006. The amendment streamlines certain ambiguous provisions in the ECA and extends the interval for revision of market analysis from a maximum of one to a maximum of two years.

### Organisation of the NRA

The Agency for Post and Electronic Communications (APEK) appears to be independent and effective. Several smaller alternative voice service providers, however, expressed dissatisfaction at the lack of specificity and timeliness of remedies imposed on SMP operators.

There have been 66 dispute cases addressed to the NRA, the great majority of them being either settled or stopped by applicants. APEK has also begun to reform informal dispute-resolution procedures between end-users and operators and between operators. It is assumed that this measure will strengthen the NRA's position as a mediator as prescribed by the Act amending the ECA. The NRA intends to resort to the obligatory decision dispute-settlement procedure only if either party opposes mediation or mediation appears to be ineffective. The Act amending the ECA provides for end-users that are consumers to be exempted from paying administrative taxes when applying to APEK for dispute resolution. The mediation procedure should be formalised in the NRA Act in preparation at the time of writing this report.

Cooperation with the National Competition Authority (NCA) is proceeding satisfactorily and according to a specific formal protocol. However, the division of responsibilities (ex ante vs. ex post regulation of the sector) appears to be complicated at times, and alternative operators reproach the NCA for failing to address core competition issues such as price squeezes.

An infringement procedure concerning the NRA's independence was stopped in summer 2006, given the reorganisation of the incumbent's supervisory board and the intended amendment of the ECA.

### **Decision-making**

APEK notified all 18 recommended markets. It took final measures in all markets, and all remedies were implemented, except the mobile call termination market (market 16), where the NRA is in discussion with the second biggest market player to find an agreement on cost orientation. The NRA launched the second round of market analyses in the autumn.

The NRA tended to impose limited remedies in several cases, like the transit markets. Delayed introduction of cost orientation raises concerns in the mobile and fixed termination markets. APEK imposed asymmetric remedies on mobile termination. Two markets were found to be competitive: market 17 (wholesale market for international roaming) and market 14 (wholesale trunk segments of leased lines).

In the retail markets APEK proposed remedies before having analysed the wholesale markets. It appears that the final wholesale markets analyses – conducted after the analysis of the corresponding retail markets - did not lead to any modifications in the remedies imposed by APEK in the retail markets.

## **MARKET AND REGULATORY DEVELOPMENTS**

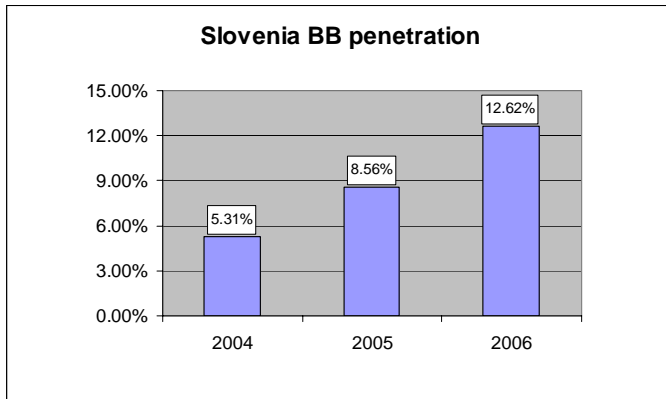
The Government announced its plans to privatise the state-owned incumbent within three years, leaving the State with a 25% stake plus one share. The sale of the state-owned interest in the incumbent is anticipated in three phases: first, listing of the shares on the stock exchange, which took place in October 2006; second, the sale of 10% of the shares to Slovenian citizens; and third, the sale of 39% of shares to a strategic investor.

The NRA organised several tenders for allocation of frequencies during 2006. Two UMTS licences and two WLL licences were granted recently. However, no investments in the physical infrastructures have been made so far in this regard. Currently more than 70% of Slovenian territory has 3G services, provided solely by the incumbent's mobile arm. This places Slovenia amongst the top EU performers.

Triple-play solutions have become widespread. The incumbent continues to upgrade its backbone and access network and is ready to offer a next generation of ADSL technology (ADSL2+). Its main infrastructure competitor continues investing rapidly in the unbundling of local loop (LLU) and provides broadband services on the basis of VDSL technology. Other fixed alternative operators are also increasingly active in unbundling. One company is rolling out core optical networks in several municipalities and has already leased facilities to alternative operators. Bigger regional cable operators are consolidating their scattered local networks. The incumbent intends to deploy WiMax technology in rural areas.

## Broadband

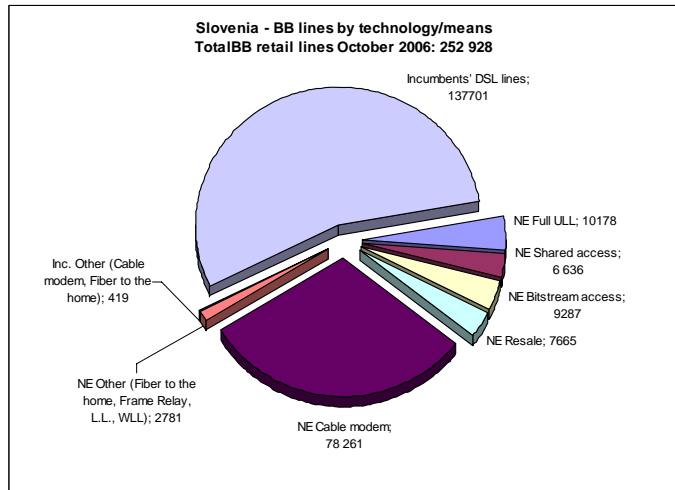
### Market situation



Broadband penetration is the second highest amongst the new Member States. There were 252 928 broadband lines in October 2006. The broadband market, which is becoming increasingly sophisticated, with ADSL2+ and VDSL services, has grown by over four percentage points since October 2005.

The retail broadband market is dominated by the incumbent's ISP

subsidiary, which also uses LLU and controls 80% of the xDSL market. In fact nearly 10% (nil in 2005) of all xDSL connections are based on unbundling, which demonstrates that operators are prepared to invest more and are now moving up the investment ladder. xDSL remains the predominant technology, with such connections constituting almost 68% of all retail broadband lines. Cable operators, with a total of 78 261 lines, ensure that there is increasing infrastructure competition. It is worth mentioning that alternative operators' overall broadband market share grew from 38% in October 2005 to 45% in October 2006.



### Regulatory issues (including market analyses and remedies)

APEK's reduction of LLU prices and improved reference unbundling offer (RUO) are seen as key drivers of broadband competition, despite a significant number of issues still to be addressed. A key issue is the risk of margin squeeze and predatory pricing by the incumbent's ISP subsidiary. APEK has proposed to switch from the current system of fully allocated costs (FAC) to long run incremental costs (LRIC) and to impose on the incumbent an obligation to set up prices on this basis by 31 March 2008 at the latest. Other issues include limited access to information about freed LLU capacities, and first-mover advantages for the incumbent's daughter company, which resells local loop capacities to alternative operators. Furthermore, the lack of service-level agreements for wholesale services, the size of co-location spaces and excessive charges for ancillary LLU facilities represent an additional set of difficulties for new entrants. Moreover, the incumbent is reluctant to install splitters delivered by alternative operators, although they are cheaper and supplied in much shorter time than those of the incumbent. Nevertheless, LLU delivery times by the incumbent have improved compared to the end of 2005.

Following an APEK decree, the incumbent significantly reduced connection charges and rental prices of full LLU to €10.6 (compared to €14.5 in 2005) and shared access to €3.3 (compared to €6.3 in 2005) at the beginning of 2006. The incumbent claims that the new prices undercut its costs, while PSTN retail prices cannot be raised to a normal level before APEK concludes its cost-analysis exercise based on the outcome of the second round of market analysis.

Despite the regulation of wholesale terminating segments in the leased lines market (retail-minus), the incumbent's prices for 2 km and 5 km rental and one-off charges continue to be amongst the highest in the EU-25.

## **Mobile markets**

### *Market situation*

Competition between operators and service providers in the mobile market is more balanced than in the fixed market, and penetration is very close to 90%. The leading operator's market share stands at 71%, while the main competitor controls 22.5% of the market. Two resellers hold the remaining share.

The number of pre-paid users decreased slightly compared to last year and accounts for 41%. The introduction of number portability appears to have favoured a new entrant reseller in particular, which launched its services towards the end of 2005. The third mobile network operator withdrew from the market in May 2006 and transferred its frequencies to a new entrant, which was expected to start providing services early in 2007.

In summer 2006 two new UMTS licences were granted to market players, one to the second largest mobile network operator (MNO) and one to the fixed voice alternative operator.

### *Regulatory issues (including market analyses and remedies)*

In the access and call origination mobile market the incumbent's mobile arm brought a court action against an APEK decision. The appeal is based on the statement that the market analysis results did not show any lack of effective competition. The court decision was still pending at the time of writing this report. In 2006 the incumbent's mobile arm received about 20 enquiries and requests for operator network access. Even though access to its network is mandated by the market analysis outcome, negotiations with alternative operators appear to be lengthy and cumbersome. As regards the market for wholesale mobile call termination, both MNOs hold SMP status, and asymmetric remedies are imposed. The incumbent's mobile arm has complied with all imposed obligations. The calculated cost-oriented target price for 2008 is one of the lowest termination charges across the EU. Until then the NRA is applying a glide-path approach. The operator has reduced the tariff for fixed-to-mobile call termination by 17% and slightly increased the termination tariff for the other mobile operator (at the moment the price for mobile-to-mobile call termination is under the calculated cost-oriented price).



Although the second largest MNO is not complying with the imposed price-control remedy, it has decreased its tariffs for fixed-to-mobile call termination by 11%. The NRA is investigating the issue. The second mobile operator's current termination charges are up to five times higher than its on-net retail price, while the operator continues to offer an off-net retail tariff which is lower than the on-net retail price of the incumbent's mobile arm. In this context it is important to mention that the leading operator creates 85% of on-net calls, while its main rival terminates only 45% of calls within its network.

Current asymmetrical regulation severely affects smaller market players, i.e. MVNOs and resellers, who have revenue-sharing agreements with the incumbent's mobile arm and are paying a high price for using the leading operator's network and facilities. Since between 10% and 30% of their calls are terminated on the second MNO's network at rates that apply to the incumbent's mobile arm, this puts them at a competitive disadvantage vis-à-vis the second MNO.

## **Fixed**

### *Market situation*

The fixed telephony market, where penetration is the highest amongst the new Member States (50%), saw a slight downward trend in overall traffic volumes, despite rather positive regulatory intervention and increased participation by alternative operators. The fixed incumbent operator maintained its dominant position in local access, in national access as well as in fixed-to-mobile calls, with market shares in terms of revenue and traffic close to 100%. International calls remain a niche for smaller market operators. There is visible competition in the markets of publicly accessible international telephone services provided at a fixed location for residential users. In addition, invisible traffic, possible through broadband internet tools for real-time communication, increases competition and variety of choice for end-users. There is a clear trend of increasing market share for new entrants (20.4% in terms of minutes in 2006 compared to 12% in 2005).

The most common distribution technology for telephone services is still the analogue PSTN system, followed by basic ISDN and analogue PSTN on the Centrex system, which is most commonly used in the business sector, whereas IP and IP Centrex systems are emerging but are not very numerous.

### *Regulatory issues (including market analyses and remedies)*

Interconnection prices for local, single and double transit remain amongst the highest in EU25. According to the 2006 reference interconnection offer (RIO), the price of international termination is equal to the price of national termination, whereas termination of international calls is not possible at local (PX) level. Furthermore, the price of transit remained unchanged compared to 2005. When coupled with the carrier pre-selection (CPS)/carrier selection (CS) charge, the price of calls terminated in the incumbent's network exceeds the price of PSTN the incumbent charges to end-users. Retail prices remain low in the absence of historical tariff rebalancing and thus there appears to be little room for competition. Alternative operators avoid setting calls which are terminated at another PX switch within the same regional (SX) node, since the cost appears to be prohibitively high.

The NRA is currently examining the RIO and intends to reduce the cost of CPS and CS. Besides, one-off interconnection charges appear to be high (initial investment between €80 000 and €160 000, according to the alternative operators). Another issue involves national calls using CS and CPS between two users on the same local exchange. In some instances calls cannot be routed, while the incumbent continues to charge services to an end-user. This usually leads to a situation where an unsatisfied end-user terminates their contract with the alternative operator. An administrative lawsuit was lodged in spring 2006.

The competitive situation is generally poor, with only one alternative operator interconnecting at local level (PX) (as this is not feasible for very small operators), three operators at regional level (SX), while three operators interconnect at the national level (IX). The incumbent ISP's aggressive policy, whereby 120 free minutes of calls and free subscriptions are offered to new subscribers, appears to affect, in particular, smaller alternative operators, since it leaves no room for any mark-up in off-peak time, not even for those competitors that would wish to interconnect at PX level. However, this offer by the incumbent's ISP is under NRA supervisory review and the procedure was pending at the time of writing this report. Difficulties have continued to persist for the last six years in the segment of voice service provision to principally non-residential but also residential users. The market share of the incumbent's bundled and non-cost-oriented Centrex services is growing steadily and seriously challenging competition. The incumbent applies large discounts for Centrex users, whereby PSTN connection appears to be five times that of Centrex. Several lawsuits were initiated at national level.

## **Broadcasting**

### *Market situation*

According to a report prepared for the Commission in 2006<sup>109</sup>, some 41% of Slovenian households had terrestrial, 13% satellite, 45% cable-TV and just below 1% IPTV reception at the end of the third quarter 2005. At that time only 1% of all households was receiving digital TV. Terrestrial analogue switch-off is scheduled for 2012, whereas the digital plan envisages national territory coverage with three multiplexes, each with seven channels.

The national television and radio broadcaster and transmission provider is the only market player with obligatory nationwide coverage; however, in practice three commercial broadcasters also cover the majority of the population. Other terrestrial broadcasters have only regional coverage and are limited in their expansion as most frequencies are occupied. There are also 46 cable operators providing content transmission services. None of these companies have nationwide operations, and in the regions where cable is offered there are nine competing operators on average. Three main cable operators account for around 60% of all cable connections. TV (video) is currently offered by three operators that also offer triple play.

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<sup>109</sup> Datisis 2006, Digital Television Data – EU Market for Digital Television.

### *Regulatory issues (including market analyses and remedies)*

Terrestrial broadcast transmission was the only market defined by APEK as susceptible to ex ante regulation.

### **Horizontal regulation**

#### *Spectrum management*

In February 2006 the Government adopted the Strategy for Fixed Wireline Systems (FWS) in the 3.41 GHz to 3.6 GHz frequency band. Implementation of the strategy should provide for rapid development of broadband in mountainous and rural areas. The Government plan is to cover up to 60% of Slovenian territory within three years from adoption, and thus to fill the current gap between LAN and WAN and to offer a plausible alternative to cable and xDSL platforms. It is intended to grant four licences; the tender for the first two was organised in March 2006 and two operators were selected for a period of 10 years, viz. the fixed incumbent and one alternative operator.

APEK organised another tender for granting licences for a multi-channel microwave multipoint distribution service (MMDS) in the frequency band between 11.7 GHz and 12.5 GHz, but failed to attract any bidders.

Two UMTS licences were awarded in the 2.1 GHz frequency band to one MNO and one fixed alternative operator. A third GSM (DCS) frequency, which belonged to the MNO that ceased operations in May 2006, was transferred to a new entrant. Slovenia has implemented all the Commission's spectrum harmonisation decisions.

#### *Rights of way and facility sharing*

Relevant laws allow the competent authorities to issue permits within a time limit of two months. In addition, legislation governing electronic communications favours urgent procedures when operators request a competent body to decide on a pressing issue.

### **THE CONSUMER INTEREST**

#### **Tariff transparency**

APEK initiated a transparency project concerning services for end-users. The project aims to develop an interactive platform that would include information on mobile, fixed and broadband services. The platform, to be launched in the first half of 2007, will provide overview and comparison facilities for end-users searching for the best service in terms of price, capacity, security and quality, and will also facilitate effective competition among operators.

APEK published on its web site the retail tariffs of all Slovenian operators for international roaming.

## **Universal service**

The incumbent was appointed as universal service (US) provider for a period of five years back in 2004; however, since January 2006 it has also been obliged to provide US to disabled and disadvantaged users.

As in 2005 APEK received no request for compensation of net costs incurred by the provision of US.

APEK issued a new general act which increased universal service data transmission speeds from 14.4 Kbit/s to 28.8 Kbit/s.

## **Emergency services (112)**

The NRA reported identifying irregularities in implementation of framework provisions relating to emergency services. Most cases involve the provision of services over VoIP, other cases concern some mobile services. The problems mainly include the failure of service providers to report on the quality of services furnished. In a few cases the services were not provided at all. Following APEK's intervention, the provision of 112 services appears to be functioning normally again.

Slovenia has introduced a "pull" technique for caller location identification and signed a Memorandum of Understanding in relation to the EU project 'eCall'. The Act amending the ECA further strengthens operators' obligations to provide the competent authority immediately and free of charge with caller number and location information, if technically possible, with the burden of proof of technical impossibility falling on the operator.

## **Number portability**

Number portability became available for mobile subscribers as of January 2006. By October 2006, 13 703 numbers had been ported. On the other hand, number portability for fixed subscribers came into place only in May 2006. Consequently, only 5 679 numbers had been ported by October 2006. The Commission was able to close the infringement proceeding in this regard in autumn 2006.

However, prices for porting numbers are reported to be high, and alternative operators in particular consider them to hinder further development of competition.

## **Must-carry**

Only the television channels of the national television and radio broadcaster and some local and student channels must be transmitted free of charge. The two leading commercial television stations do not have must-carry status.

# SLOVAKIA

## INTRODUCTION

Infrastructure competition is growing on the broadband market, though the majority of market share is still in the fixed incumbent's hands. Broadband retail lines more than doubled since the previous year, but broadband penetration at 4.33% is the second lowest in the EU. It appears that prices, content and various macroeconomic and even social factors play a role in the slow broadband take-up. While fixed-market competition remains rather limited, the mobile market experienced significant development in 2006 with the entry of a third player. Mobile number portability has been implemented and is expected to be an important tool in consumer choice once the third market player becomes operational.

Throughout 2006 regulatory developments in Slovakia were dominated by the ongoing process of NRA market analyses and imposition of remedies. Although significant progress was made in the market review process, remedy measures were lacking in many markets. Partial implementation of some of those imposed is likely to delay their full potential impact on the electronic communications market in terms of improved conditions for competition and a broader range of service offers. Moreover, basic tools to foster competition, such as carrier pre-selection, fixed number portability and local loop unbundling, are not yet applied in practice. Additional obstacles to the practical effect of the regulatory framework arise from an automatic suspension of the NRA's decisions' effectiveness pending administrative appeals, as well as an infrequent utilisation of dispute-settlement mechanism by market players.

## REGULATORY ENVIRONMENT

### Main regulatory developments

The Ministry of Transport, Post and Telecommunications notified an amendment to the primary law following infringement proceedings concerning incorrect transposition of the regulatory framework, and the Commission thus closed two such proceedings in July 2006. The Ministry participated in preparing primary legislation focused on digital broadcasting, taking the opportunity to seek further better transposition in the electronic communications area.

The Slovak regulator TÚSR continued making progress towards finalising the first round of market analysis notifications, and with 16 market notifications overall almost completed the market analyses listed in the Recommendation. The NRA found effective competition on one of the markets among those notified (mobile access market). All other markets were found not to be competitive. During 2006 the regulator notified 11 markets and took final measures in six of them. Only one market analysis was closed without comments from the Commission. Besides the wholesale national market for international roaming on mobile networks, the wholesale market for trunk segments of leased lines remains to be re-notified after the NRA withdrew notification in June 2006 following doubts expressed by the Commission.

## **Organisation of the NRA**

TÚSR is the primary state administration body responsible for regulation of electronic communications holding supervisory powers, including imposition of fines.

Besides having general responsibility in the primary legislation field, the Ministry holds certain regulatory powers concerning universal service and the frequency allocation table. It also owns and manages 34% of the incumbent's shares. Since this is not in line with the EU framework, the Commission has proceeded with an infringement proceeding.

TÚSR appears to be facing difficulties related to lack of resources, both personnel and finances. It appears that lack of in-depth regulatory monitoring and the ability to push forward the status of remedies imposed but not yet implemented are linked to the resources issue. The NRA continues to be financed from the Ministry budget. The Government made no headway on a proposal, approved in 2005, to change TÚSR's financing mechanism so as to strengthen its independence via self-financing.

As regards the dispute-settlement mechanism, the legislation in place grants the NRA the power to issue decisions on disputes related to all obligations arising from the Electronic Communications Act. However, during 2006 the NRA neither received an eligible dispute case nor issued any decision within this mechanism. One dispute case regarding LLU has been pending since 2005.

Appeals to the NRA Chairman against TÚSR's first-instance decisions result in automatic suspension thereof. Such automatic-suspension effect can be excluded only in cases of urgent general interest or if an irretrievable loss is likely, but this provision has not been applied yet. If appealed against, only decisions delivered at second instance are effective, unless the court decides otherwise. The Commission is examining this matter as to compatibility with the EU regulatory framework.

To date, the incumbent has always appealed against an NRA first-instance decision. On the other hand, only one decision was appealed against at court level. It appears that due to the automatic suspension arrangement, the appeal process caused delays in remedy implementation. This situation may have a negative impact on the effective timing of the regulatory measures taken. Moreover, market players are concerned about the length of time it takes to reach decisions when the NRA Chairman is the appeal body.

## **Decision-making**

The NRA continued its considerable efforts to proceed with the market analysis process and appears to be tackling it efficiently. In contrast, it seems that the NRA needs to take a more proactive regulatory approach to resolve cases in which remedies are imposed but not successfully implemented in practice by market players. Implementation of such key elements as CPS and LLU for fostering market competition made no progress in 2006. This situation appears to be linked to insufficient details having been provided on the implementation of price-control, cost-accounting and cost-orientation obligations at the time these remedies were imposed. In order to prevent further delays in bringing effective competition to the relevant market, the remedy measures need to provide details on the principles and models of implementation underpinning the proposed obligation.

TÚSR does not appear to have a comprehensive mechanism for investigating whether reference offers are fully in line with the remedy measures imposed. New entrants expressed concerns as to certain provisions in RIO and RUO being directly contradictory to the remedies' overall aspirations, as well as containing provisions preventing effective use of dispute resolution. With regard to the latter, concerns are raised in particular as to Article 16(1) and Article 18(4) of the RIO, which both state that "if contracting parties are unable to reach agreement (on changes to this contract; on dispute resolution), they are allowed together and after mutual consent to turn to the state regulatory body for electronic communications (TÚSR) in order to seek agreement". TÚSR has not initiated any investigations with regard to RIO or RUO, as in its view, regulatory action needs to be prompted via the dispute-settlement mechanism. This deadlock appears to have a detrimental effect on the market players' confidence in the regulator in particular, as well as on the state of market competition in general.

At the beginning of the market review process the Commission repeatedly urged the regulator to carry out a national public consultation with all interested parties on each draft measure and market definition, so as not to have the opportunity to comment limited just to the operator with significant market power. TÚSR accepted this advice and acted accordingly. Despite the change in the consultation provision, the consultation participation of other operators concerned remained rather limited throughout 2006, and, in fact, formal comments come only from the significant market power operator(s). The lack of feedback from other market players may in turn have a negative impact on the regulator's capacity to assess the market and to design the appropriate remedy.

## **MARKET AND REGULATORY DEVELOPMENTS**

The incumbent continues to dominate the fixed market and the broadband market. It follows the trend of converging voice, data and video into an integrated service with lower prices for its customers. Since late 2005 it has also offered video and music on demand.

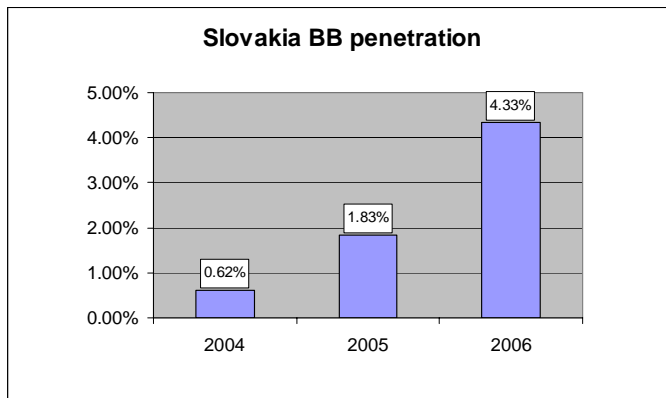
The larger of the two mobile operators currently offering mobile services opted for an integrated operator approach and launched a trial project targeted at converging fixed, mobile and broadband services via fibre to the home (FTTH). Investment in this area is expected to intensify in 2007 with a view to providing triple-play and quadruple-play services.

The broadband market is dominated by the incumbent's DSL service. At 4.33% the broadband penetration rate is amongst the lowest in the EU. Wireless broadband services offered by four operators through WIMAX technology launched last year constitute only a minor part of the broadband market share. Both mobile operators launched their 3G services at the beginning of 2006. The larger mobile operator uses high-speed mobile technology HSDPA and UMTS TDD and offers music and video-on-demand services. This operator's 3G service covers over a third of national territory. The second mobile operator owned by the fixed incumbent uses the same mobile technology, but its coverage is significantly smaller. This operator concentrates more on developing the Flash-OFDM broadband technology network, where it has 70% coverage. Cable remains the most important competition platform for the incumbent's DSL.

The fixed market continues to decline in numbers, but is expected to gain momentum as DSL service gains importance.

## Broadband

### Market situation

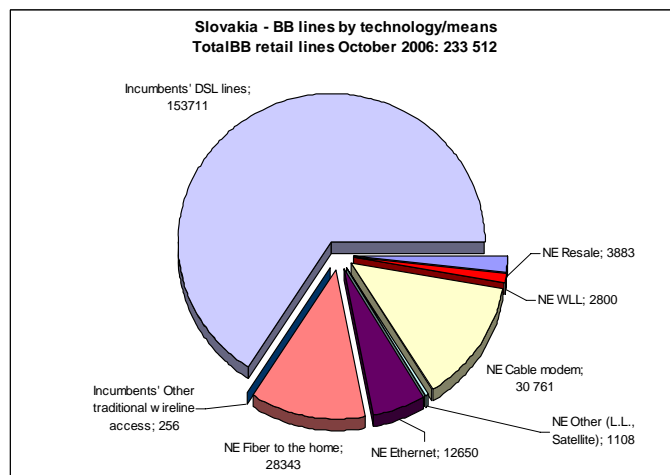


The incumbent operator dominates the broadband market, having over 66% of market share. The sources of infrastructure competition are DSL, cable modem, FTTH, wireless local loop and leased lines. With no bitstream access obligation in place yet, DSL service is mostly provided by the incumbent. Alternative operators are reselling a minor 1.6% of total DSL volume. Cable with 13.2% of market

share and FTTH with 12.1% are the new entrants' main means of providing broadband services. While in 2005 only the biggest cable operator provided broadband services via cable, the number of broadband providers over local cable networks increased significantly in 2006.

DSL lines underwent the most rapid growth by numbers. DSL growth indicates the DSL market's increasing importance, thus highlighting the importance of removing barriers to market entry for new players.

The Government launched a nationwide initiative to promote broadband penetration and to address the retail price issue by setting up a mechanism to provide broadband customers with financial support.



### Regulatory issues

Analysis of the market of wholesale broadband access was notified to the Commission in July 2006. TÚSR is currently preparing the second-instance administrative decision on the remedies to be imposed on the SMP player. As bitstream access is not yet imposed, and the incumbent's DSL wholesale prices continue to be unregulated, competition on the DSL market remains very limited. Given the importance of DSL within broadband platform competition, this situation appears to be an additional factor preventing retail price drops and thus restraining higher broadband penetration.

The incumbent published a RUO in August 2005 following a remedy obligation from TÚSR. However, to this date no unbundling agreement has been signed and LLU has thus not been implemented in practice. There are currently no negotiations on LLU between the incumbent and alternative operators. Prices remain unregulated for fully unbundled loop as well as shared access within RUO. These prices are clearly high and act as a deterrent to practical implementation (fully unbundled loop: connection €169.6 – the highest in the EU, monthly rental price dropped from €14.1 to €10.8 but is still very high; shared access: connection



€ 178.8 – the highest in the EU, monthly rental price dropped from €10.3 to €8.27 but is still well above the average). In addition, there is no regulation of prices regarding co-location. On the other hand, though, TÚSR deems price regulation in terms of cost orientation to be counter-productive as tariff rebalancing has not been finished.

The Slovak NCA fined the incumbent €22 million in May 2005 because the absence of a RUO was found to constitute an abuse of dominant position. The fine has been appealed against and remains pending in court, so imposition of the fine is not yet effective.

## **Mobile markets**

### *Market situation*

There are two market players currently offering services on the mobile market. The smaller mobile operator is a 100% subsidiary of the fixed incumbent, 49% of which is in turn owned by the State. Both current operators offer EDGE, GPRS and 3G services. There are no MVNOs or SPs present on the Slovak mobile market, but this appears to be currently due to lack of demand. Mobile penetration is 86%.

A major development in the mobile market was the entry of a third operator in September 2006. The new player has arranged for a national roaming, and is expected to launch GSM services in February 2007 and UMTS services within 12 months from authorisation. The third mobile operator is expected to bring positive competitive pressure to the Slovak mobile market.

### *Regulatory issues*

The market for access and call origination on public mobile networks was re-notified to the Commission in July 2006 after the NRA withdrew notification in September 2005 following doubts expressed by the Commission. The market analysis found no individual or collective dominance on the given market. Thus no remedy obligations were set.

As regards the market for voice call termination on individual mobile networks, both current mobile operators were found to have significant market power on that market. Final remedies were notified in July 2006. The regulator opted for obligations of access, transparency, non-discrimination, accounting separation, and cost accounting. Nonetheless, cost orientation as such was not imposed, and the cost-accounting obligation does not appear to provide sufficient details as to the applicable model and principles of implementation underpinning the proposed obligation. While the decision stands effective, the smaller mobile operator has appealed against it in court.

## **Fixed market**

### *Market situation*

Despite the fixed market having been opened up in 2005, it remains largely dominated by the incumbent. In 2006, four new interconnection agreements were concluded between the fixed incumbent and alternative operators, raising the total number of effective agreements to 10. Six alternative operators offer voice services via carrier selection. Moreover, two operators offer voice services via their cable network as part of triple play. On the other hand, there is still no progress in provision of direct access to fixed telephony services.

Carrier selection was implemented at the end of 2005, but its impact on competition appears to be rather small. The alternative operators' market share by retail revenue is 7%. These appear to be most successful in competing on calls to mobile networks and international calls. The interconnection prices for call termination on the incumbent's network, despite decreasing in 2006, remain well above the EU average (by 51% at local level, by 44% at single transit, and by 39% at double transit). It appears that effective establishment of competition on the retail fixed market is only just starting, and new entrants are facing price barriers to entering the fixed market.

The State continues to own 49% of the incumbent's shares. The Ministry owns and manages 34%, while another 15% is owned by the National Property Fund.

### *Regulatory issues*

The incumbent was found to have significant market power on all the relevant markets of fixed telephony. As regards the retail access markets, TÚSR imposed measures providing market access for new entrants and restricting predatory or excessive prices on the part of the incumbent. Prohibition of unreasonable bundling of services as well as CS and CPS were among the remedy obligations. In response to the remedies imposed, the incumbent unbundled provision of voice and DSL services in May 2006.

Non-implementation of carrier pre-selection, fixed number portability and wholesale line rental other than for leased lines continues to hinder more effective competition on the fixed market. Though CPS was made a part of the RIO, none of the alternative operators opted to use this service. No disputes were submitted to the NRA regarding the RIO provisions.

Price appears to remain the main obstacle to CPS implementation. The Law on Electronic Communications stipulates that prices for access and interconnection related to the provision of CS and CPS have to be cost-oriented. However, in its CS and CPS obligation, TÚSR did not accompany the measure with any specification on how to implement and enforce price control. As to retail price control, the regulator chose not to impose cost orientation of tariffs because rebalancing has not been finished yet, and such an obligation was felt to be counter-productive. In the wholesale call origination market, the regulator chose not to impose cost orientation at all, based on the conclusion that cost orientation would implicitly be imposed by means of CS/CPS. However, imposition of CS/CPS plus non-discrimination in the call origination market may not be sufficient to address the competition problems in this area. To facilitate this, explicit imposition of cost orientation and application of appropriate cost-accounting methods might have to be considered. The regulator indicated that a more detailed approach would be taken in this regard in the next market review round.

In the fixed call termination market TÚSR imposed cost orientation based on the LRAIC methodology. In the market for terminating segments of leased lines, wholesale line rental – imposed as a remedy in November 2006 – is expected to add extra value for end-users.

## **Broadcasting**

### *Market situation*

Broadcasting in Slovakia is based mainly on analogue terrestrial transmission (51.6%), followed by cable transmission (24.5%) and satellite transmission (23.9%)<sup>110</sup>. There are over 180 local cable networks, the incumbent holds close to 100% of market share in analogue terrestrial broadcasting.

Pilot digital TV broadcasting continues to operate in three major cities and neighbouring areas. Two new transmitters started operation in 2006. There are two pilot service providers offering services on a DVB-T basis in three pilot projects. While TÚSR selected the service providers for the pilot project via tender, the content of multiplexes was determined through a tender issued by the Council of Broadcasting and Retransmission. The NRA plans to put out nationwide licences to tender in 2007 once the appropriate digital TV legislation takes effect.

### *Regulatory issues*

In the broadcasting transmission services market analysis TÚSR decided to restrict the definition, and hence the analysis, to analogue terrestrial broadcasting transmission only. Concerning other services, TÚSR did not carry out any further analysis as to whether other transmission services are susceptible to ex-ante regulation on the basis of the three-criteria test defined in the Recommendation. The Commission therefore invited TÚSR to analyse the excluded markets of cable transmission services and nationwide digital terrestrial television broadcasting transmission services to determine which ones are susceptible to ex ante regulation.

The Digital Broadcasting Act is currently in the legislative process and is expected to enter into force in March 2007. The draft law envisages the start of regular terrestrial digital broadcasting from the end of 2007 or beginning of 2008. The Ministry prepared a national Strategy of Digital Broadcasting in Slovakia, which was approved by the Government in July 2006. The document provides details of the switchover plan on a DVB-T basis and sets analogue switch-off for the end of 2012. As part of the digital switchover process, TÚSR has not issued any further analogue transmission licences since April 2006. It also started preparing the technical plan and frequency table for digital transmission.

## **Horizontal regulation**

### *Spectrum management*

The national table of frequency allocations is prepared and updated annually by the Ministry. TÚSR cooperates with the Ministry on the table draft proposal. TÚSR facilitates spectrum management and assignment of individual frequencies. As regards implementation of the radio spectrum harmonisation decisions adopted by the Commission, the Slovak authorities signalled complete implementation of all decisions. The decisions were incorporated into the national frequency allocation table, and the NRA issued respective implementation decisions. Based on an agreement with the Interior Ministry, registration for frequencies within the

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<sup>110</sup> Source: Datis: Digital Television Data, EU Market for Digital Television; report prepared for the European Commission, 2006.

24GHz automotive short-range radars decision should start at the beginning of 2007. The possibility of spectrum trading is envisaged by the primary law.

### *Rights of way and facility sharing*

The Electronic Communications Act contains provisions governing the granting of rights of way. It uses inscription of easement on property as the main tool for establishing rights of way. As the law appears to provide neither for specific details on financial compensation nor for a fast and effective dispute-settlement mechanism (i.e. any disputes are solved through courts), undertakings often opt for general civil law to ensure their rights of way.

## **THE CONSUMER INTEREST**

### **Universal service**

A major development was the designation of a universal service provider. The incumbent was designated in April 2006 as the sole provider of the full scope of universal service. The designation was made via public consultation for an unspecified period. As the legislation on universal service does not include provisions for a review of the designation, this situation may raise concerns of transparency.

The scope of universal service is defined in the primary law. The Ministry issued secondary legislation in 2004 concerning the financing mechanism for the universal service. Based on the ministerial decree, universal service is to be financed, after determination of the unfair burden, from a fund to which operators contribute on the basis of their annual turnover share on the domestic market. TÚSR manages the fund. The operator providing the universal service has so far not applied for financial compensation of the net cost.

### **Directory services and directory enquiry services**

After a comprehensive directory and directory inquiry service comprising all subscribers, fixed and mobile, became available in April 2006, the Commission closed an infringement proceeding in this regard.

### **Emergency services (112)**

The single European emergency number, 112, is accessible both from fixed and mobile phones. However, caller location information for all calls made to 112 is not yet available to the emergency services in Slovakia. The Commission addressed this issue via an infringement proceeding in 2006.

### **Number portability**

The incorrect transposition of number portability into national legislation was addressed by the Slovak authorities in an amendment to the primary law that took effect in April 2006. Following this amendment, mobile number portability became available in May 2006. Although the total number of ported mobile numbers is low (1 980), it is expected to be an important tool of consumer choice once the third mobile operator launches its service. Both current mobile operators charge a fee (€28 by the larger operator and €14 by the smaller operator) to provide this service.

Number portability is an important tool in fostering competition in the fixed market as well. However, despite efforts made in the specialised association for number portability, fixed number portability still remains to be implemented. The Commission initiated an infringement proceeding in this regard in October 2006. The matter appears to have made progress since then, as the first two number-portability agreements between the incumbent and new entrants were signed at the end of 2006.

### **Must-carry**

The Law on Broadcasting and Retransmission covers must-carry provisions. Under the current regime all retransmission providers are obliged to carry all domestic public and commercial channels and also to reserve one channel free of charge for local municipalities. An amendment to the primary law aiming at better transposition of the Universal Service Directive is currently in the legislative adoption process. The Commission services will examine the amendment once it is notified.

### **Out-of-court dispute resolution**

The NRA dealt with a significant number of out-of-court disputes during the reporting period. Most disputes of a financial nature related to text messages, international roaming and calls to audio-text numbers. Disputes relating to quality of services mostly concerned failures at fixed connection, data service speed and availability of certain services within mobile networks. No agreement between the parties involved was reached in approximately one third of the disputes. The regulator's decisions are non-binding on the parties to the dispute.

### **Data protection**

Following an infringement proceeding on cookies and exception from the opt-in principle for electronic advertising launched in 2005, progress has been noted towards finalising all the necessary legal amendments.

# FINLAND

## INTRODUCTION

2006 was a year of stabilisation for the Finnish electronic communications market. Finland kept its third place in EU broadband penetration. The uptake of third generation mobile services is strong; however, coverage is so far limited to the more densely populated areas. While Finnish local call prices for fixed telephony are among the lowest in Europe, fixed-to-mobile substitution has been progressing rapidly over the last year.

The national regulatory authority has started the second round of market reviews. In the meantime, several amendments to the Communications Market Act are being prepared that should give the NRA, FICORA, more powers. The Commission took Finland to court in 2006 for not endowing the NRA with sufficient powers to impose price regulation on all wholesale mobile call termination.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Amendments to the Communications Market Act due to enter into force in March 2007 will give FICORA more powers in the area of consumer contracts. Another amendment is in Parliament. It addresses the Commission's issue regarding a priori exclusion of operators from becoming universal service operators. This amendment also includes provisions about FICORA's powers regarding cost-accounting methodologies. Another amendment to the Act planned for the Parliament's spring session should give FICORA the power to introduce glide paths and symmetry in mobile termination price regulation (see also below). The Commission continues to be concerned that FICORA does not have all the potentially necessary regulatory tools as envisaged by the Regulatory Framework, and sent a supplementary letter of formal notice to Finland in 2006 clarifying its position in this regard.

### Organisation of the NRA

Operators perceive the often long decision-making times from SMP decision to implementation – especially in cases where the decision is appealed against (see below) – as a problem creating uncertainties about the sector's rules. FICORA, on the other hand, promotes transparency by chairing 10 permanent working groups with industry as well as some temporary ones, such as for consumer contract terms. Cooperation with the NCA has been good, and follows a formal protocol. However, the division of labour and the assignment of complaints are at times complicated, and it can happen that parts of a complaint will go to FICORA while another part goes to the competition authority.

### Decision-making

Court appeal-handling times vary between one and two years. The Supreme Administrative Court has seemed less inclined lately to suspend FICORA's decisions. The agency's new decision on wholesale mobile call termination – following the Court's order that further account should be taken of countervailing market power – was appealed against but not suspended. While the Court has sent two cases back to FICORA for re-assessment, FICORA's decisions have generally been upheld on the substance.

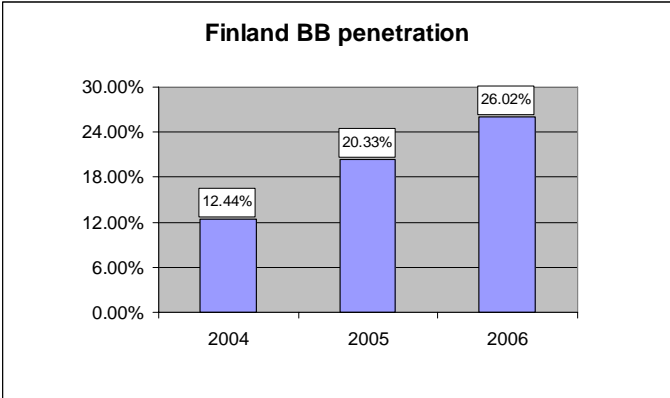
The second round of market analysis is ongoing. Following the completion of the analysis for the wholesale mobile call termination market, the LLU and wholesale broadband access markets are being re-examined.

**MARKET AND REGULATORY DEVELOPMENTS**

Without any major new market or regulatory developments, 2006 was a year of stabilisation in the sector. The structure of the Finnish market remains unchanged, with three groups controlling the bulk of the communications infrastructure with their own mobile, trunk and access networks. The smallest such group is the association of local telephony operators, which make up another distinct feature of the Finnish electronic communications sector and are further discussed below. The most important sector-specific trends in Finland relate to the mobile market and are discussed in that subsection.

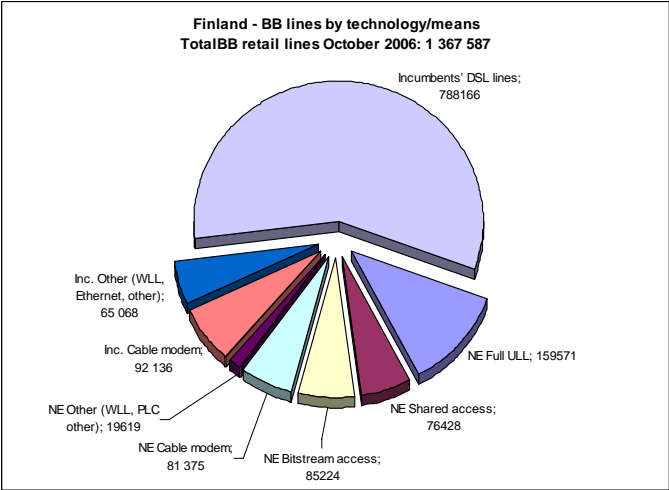
**Broadband**

*Market situation*



Finland is maintaining its third place among broadband penetration in EU Member States, but the growth rate is slowing down as the market becomes more saturated in relative terms. Broadband infrastructure competition in Finland is potentially restrained by the fact that local telephony incumbents often own the local cable-TV networks as well.

Nevertheless, local operators state that they are providing broadband via cable TV, or upgrading their cable-TV networks to bi-directional communication with the intention of doing so. For the time being, xDSL remains the predominant form of consumer broadband access in Finland. The main incumbent groups, but also to some extent other operators, have broadband networks of their own in the more densely populated areas of each other's incumbent areas and only lease local loops for access there. According to FICORA, there was a general retail price increase in 2006 on subscriptions for up to approximately 2 Mbit/s. These account for over two thirds of all subscriptions.



## *Regulatory issues*

LLU delivery times improved but are still perceived as a problem. The LLU connection charges remain at a high level similar to that of 2005. An independent study published in October 2006 examined why connection prices are higher in Finland than elsewhere. Alternative operators are comparatively more affected by the high connection prices than the three main incumbent groups, which each control about one third of local loops but make use of LLU to compete outside their respective incumbent areas. Whereas the incumbents have both the expenditure and income of a higher price level, alternative operators see only the expenditure. A number of margin squeeze cases are still with the competition authority. While prices vary significantly between regions, there is a perception on the demand side that there is generally also a margin squeeze effect in the provision of wholesale bitstream access, and the competition authority has received several requests for action in this area. Part of the problem appears to be that more and more households are discontinuing their fixed phone line in favour of mobile telephony, increasingly leaving the alternative operator with having to pay the LLU unbundling price in addition to the bitstream access-related price component.

## **Mobile markets**

### *Market situation*

In an EU-wide Eurobarometer study for the Commission in November 2006, 93% of those asked in Finland replied that they have a mobile phone, making it the country with the second most widespread mobile phone ownership in the EU. According to the same study, pre-paid card usage in Finland is exceptionally low compared with the EU at large, with only 4% of those saying they own a mobile phone indicating that they have a pre-paid arrangement for that phone. The fixed-to-mobile substitution process in Finland seems to be going faster than in comparable countries such as Sweden, although fixed-line penetration has historically been lower in the former than the latter. UMA<sup>111</sup>-type solutions combining fixed and mobile access have so far not appeared. Operators seem to want to follow a different path, where improved indoor coverage – a key benefit of UMA – can be achieved through the use of the 900 MHz radio spectrum frequencies for UMTS (“UMTS-900”; see below).

For some time after the third Finnish GSM network was launched in 2003, the resulting overcapacity in mobile networks created competition at wholesale level to host MVNOs. Developments since then have substantially increased mobile network traffic, with less available capacity and proportionally fewer incentives to offer network capacity to MVNOs as a consequence.

Around 50 regional licences for fixed wireless access had been awarded by the end of 2006. Three WiMAX licences were awarded in 14 regions. Applications for new licences are still being processed. According to the national frequency plan, a maximum of three such radio licences can be awarded for each geographical area. Commercial operators have expressed state-aid related concerns about local governments building wireless networks or providing financial support to local companies building such networks. All three UMTS licence holders have now started up 3G services. UMTS coverage is so far limited to the capital region, bigger towns and the ski resorts.

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<sup>111</sup> Universal Mobile Access.



After a period of significant churn following the successful mobile number portability reform (see also below), the retail market situation calmed down considerably as indicated by the fewer numbers ported. The slowdown in ported mobile numbers appears to have happened before the amendment to the Communications Market Act allowing subsidisation of 3G phones in April 2006. The largest mobile operator's market share decreased slightly between 2005 and 2006.

### *Regulatory issues*

It is anticipated that the calculated mobile termination fees will be lower than at present with the new "FIFAC" current cost-accounting model developed by FICORA. The two largest mobile operators are concerned that the asymmetric element of the mobile termination price regulation – which favours the newest, third operator – would increase with the introduction of the new model. Those operators are also concerned that there is no glide path to symmetry, as Finnish legislation does not empower FICORA with such a tool. FICORA, however, considers that while cost calculations will be done on an individual network basis, there will also be room for efficiency considerations. Moreover, an amendment to the Communications Market Act planned for the Parliament's spring session is to give FICORA the power to introduce glide paths and symmetry in mobile termination price regulation. The Commission referred Finland to the Court of Justice in 2006 for failing to ensure that FICORA has sufficient powers to impose price regulation where appropriate on the wholesale termination of fixed-to-mobile calls.

## **Fixed**

### *Market situation*

Small local incumbents have traditionally been a characteristic feature of the Finnish fixed telephony market. What today remains of that structure is a well-coordinated group of 35 such operators. These undertakings take varying ownership forms, but are normally regionally controlled in the form of limited companies. A few are co-operatives. Many of the group's members cross-own each other to different degrees. Counting the group of 35 local operators as one, there are three major fixed telephone operators in the Finnish market (no data on fixed market shares).

Operators do not appear to see a great need for wholesale line rental. Finnish local call prices are among the lowest in Europe. IP-telephony is not widely used by consumers. Generally, traditional fixed telephony copper lines are no longer installed in new homes. Instead, FTTH<sup>112</sup> or other access forms are provided. The rapidly progressing fixed-to-mobile substitution in Finland caused a 32% decrease in fixed telephony traffic minutes during 2005. According to data from FICORA, the number of fixed telephony subscriptions decreased by 3.7% in the second quarter of 2006 alone, while the number of mobile subscriptions – approaching saturation – increased by 1.4% in the same period. Fixed-line penetration decreased from 55% to 40% between 2000 and 2005.

The average monthly rental for a 34 Mbit/s part circuit leased line was in October 2006 among the lowest in the EU countries where information was available.

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<sup>112</sup> Fibre To The Home.

## Broadcasting

### *Market situation*

FICORA data show that approximately 51% of Finnish TV households were using some kind of digital TV reception in August 2006. According to a report<sup>113</sup> prepared for the Commission in the same year, 33% of all TV households were already using digital terrestrial reception at the end of the third quarter 2005 – the highest figure in the EU. Consequently, a large majority of terrestrial households were already receiving digital broadcasts back then. Terrestrial analogue switch-off is scheduled for August 2007.

### *Regulatory issues*

The operator running the terrestrial digital broadcasting network acquired a DVB-H<sup>114</sup> licence in March 2006, and announced its intentions to offer services and compatible handsets in the capital region by the end of 2006. The licence concerns only the use of the spectrum and not the provision of content. FICORA will grant the licences for the provision of DVB-H programming. This lighter licensing regime was established by an amendment to the Act on Television and Radio Operations which entered into force in January 2007. Concern was expressed that too strong intellectual property rights in general will hinder the emergence of new platforms and services, and in particular that additional royalty fees would have to be paid for content transmitted by DVB-H and possibly for TV over the 3G access network, if those services were to be considered separate services from DVB-T.

## Horizontal regulation

### *Spectrum management*

FICORA issued a decision on the allocation of new spectrum which will contribute towards the allocation of equal amounts of spectrum in the 900 MHz bands between the existing 900 MHz-frequency licence holders by early 2007. Previous allocation was based on traffic volume per operator, and the largest mobile operator has appealed against the decision. Finnish mobile operators are pressing for “refarming” of the 900 MHz radio spectrum frequencies<sup>115</sup> for UMTS usage (“UMTS-900”). One of the perceived benefits of such a reform would be improved indoor coverage by comparison with the 2.1 GHz frequency range normally used for UMTS. Operators foresee an increased need for UMTS-900 within a year as 3G take-up is driven by the recently allowed special subsidies for 3G handsets. In autumn 2006 one of the mobile operators announced that it had undertaken 3G test calls in the GSM frequency bands, and that – together with a Finnish mobile communications technology provider – it had carried out a WCDMA/HSDPA data call on the 900 MHz band in a commercial network.

On 2 June 2006 the Finnish Ministry of Transport and Communications announced its decision to allow UMTS-900. According to the Finnish authorities, the network licence holders are not using all available 900 MHz frequency bands for their GSM networks in sparsely populated areas, and the aim of the Decree amendment is to allow each telecommunications company to decide for itself whether to use UMTS-900 in such areas.

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<sup>113</sup> Dataxis 2006, Digital Television Data – EU Market for Digital Television.

<sup>114</sup> Digital video broadcasting for handheld terminals.

<sup>115</sup> These frequencies are currently used for GSM in Europe.

The frequencies have not been put into use for UMTS so far. The Commission services are following the matter closely.

The “Digital 450” licence – described further in the 11th Report – was given on the condition that only wholesale transmission services are to be provided. The licence holder (which is already running the terrestrial digital broadcasting network) has to build out the network in rural and remote areas within a certain time frame, but is also allowed to build in densely populated areas. Buildout has been delayed by an appeal against the decision to grant the licence. According to a communication from the licence holder on 9 October 2006, the network will be ready for use on 1 April 2007.

Finland implemented all the Commission’s spectrum harmonisation decisions.

## **THE CONSUMER INTEREST**

### **Emergency services (112)**

112 has been the main number for emergency calls in Finland for a number of years, and has high recognition in Finland as the European emergency phone number as well.

### **Number portability**

Fixed number portability in Finland has mainly been a corporate user affair. The mobile number portability reform was far more successful. In October 2006 there were approximately 3.5 million accumulated ported mobile numbers, as compared to 2.7 million a year earlier.

### **Must-carry**

Questions concerning the definition of general interest objectives were raised with the Finnish authorities in infringement proceedings. In June 2006, the Commission decided to send a letter of formal notice to Finland for what it perceived to be a lack of defined interest objectives and proportionality of Finnish must-carry obligations for cable-TV networks.

### **Consumer complaints and out-of-court dispute resolution**

A March 2007 amendment to the Communications Market Act (see also above) will give FICORA the power to regulate consumer contracts to the effect that operators will no longer be able to change contract terms without explicit justification. Operators will also have new responsibilities regarding errors or delays in communications services, with the Act defining sanctions for errors. Additionally, the Act will contain provisions related to the unauthorised use of communications services.

### **Data protection**

Amendments to the law have widened the scope of e-privacy rules to include non-public internal networks. There have been discussions between the responsible agencies and industry regarding interpretation of the rules on what employers can or cannot do with their internal traffic data. The level of detail in the regulation is relatively high, for example as regards what operators are allowed to do in situations of compromised security.

FICORA devotes significant resources to the internet area, with a 30-staff department including the national CERT (Computer Emergency Response Team). It has issued regulations on e-mail spam protection measures and on internet functionality. The bill implementing the Data Retention Directive will be in Parliament by the spring session, but the Communications Market Act will not be changed for that purpose. The Data Protection Ombudsman handles many complaints about spam. There are also industry working groups dealing with these issues. While the division of tasks between FICORA and the Ombudsman is not always clear, there is substantial cooperation between the two in order to ensure that no matter falls in between them.

# SWEDEN

## INTRODUCTION

The electronic communications market appears to be consolidating into mainly four Nordic groups. Consumer broadband generally became cheaper last year and is still in a relatively strong growth phase. Sweden has the highest mobile phone ownership in the EU, but comparatively low fixed-to-mobile substitution; 98% of the population has UMTS coverage. The regulatory environment remains relatively unchanged from a year ago. The NRA (PTS) completed the first market analysis round – resulting in Sweden being the EU Member State with the fewest regulated markets – and is starting its second round of analyses. The number and length of appeal procedures and suspensions is still the most important issue. A government-appointed commission proposed measures to improve the situation.

## REGULATORY ENVIRONMENT

### Main regulatory developments

Overall there were no major changes in the regulatory environment in the last year. With its decision in October 2006 not to regulate the wholesale international mobile roaming market, Post- och telestyrelsen (PTS) completed the first round of market analyses. As a result, Sweden became the EU Member State with the fewest number of relevant markets regulated in the sector. Seven of the markets in the Commission's Recommendation have been deemed effectively competitive. PTS is starting its second round of market analyses with the fixed and mobile interconnection markets, but is awaiting the revision of the Commission's Recommendation before notifying second-round decisions. It believes that decisions on the interconnection markets in the second round can be notified in the second half of 2007.

### Organisation of the NRA

Generally well organised, PTS and the competition authority now have in place – as foreseen in the 11th Report – a memorandum of understanding on how the two agencies should work together, including in the fields of market analysis and the exchange of data. There is a similar agreement between PTS and the Consumer Agency. The Competition Authority has between four and five full-time posts dealing with electronic communications issues, including work with PTS on market analyses. It also expressed interest in having a formal mandate to comment on draft regulatory obligations for SMP operators produced by PTS. In the field of privacy protection, PTS cooperates with the Swedish Data Inspection Board through regular meetings and informal contacts when necessary.

The Consumer Agency's recent relocation from the capital has involved a large turnover of staff, and the new recruitment process had still not been completed at the end of 2006. The loss of personnel seems to have forced the authority to fall back on a more reactive strategy in the electronic communications sector. The Consumer Agency intends to build a team of lawyers to work on electronic communications issues, but while this area is prioritised, it has been difficult to find staff.

Appeals remain a key issue. In July 2006 there were 55 appeals against PTS decisions at the Stockholm County Administrative Court (first instance) and five such cases at the Stockholm Administrative Court of Appeal. PTS decisions on obligations were appealed against on all

markets but one, and final rulings on several decisions appealed against in 2004 were still pending in September 2006. Many of the currently pending appeals against PTS regulatory decisions relate to the wholesale mobile termination market, including appeals against the cost-calculation model, enforcement decisions and dispute-resolution decisions. However, in October 2005 a commission originally set up to investigate the need for modifying the mast sharing rules (“the Karlström Commission”) was given the additional assignment of reviewing the decision-making procedure under the Electronic Communications Act. The assignment included appeals procedures and the division of responsibilities between the government agencies involved. One year later the Karlström Commission presented its findings together with proposals for improvements. It identifies the extensive right of parties to submit further documentation in court procedures as a delaying factor.<sup>116</sup>

The Karlström Commission’s proposals aim at reducing regulatory uncertainty by more detailed SMP decisions, creating incentives to comply, and shortening the average time between initial decision and implementation. Among other things, it proposes a change in the law so as to require obligations for SMP operators to be more detailed at the SMP decision stage, a possibility of bringing civil action for damages as a result of non-compliance with regulatory obligations, time restrictions on the right to submit additional documentation in court proceedings, and a limit on the appeal instances from currently three to two. It also proposes a six-month time limit for court judgments, and stricter criteria for granting suspensions.

The Swedish Electronic Communications Act does not explicitly state who has the right to appeal against national regulator decisions. Therefore, general administrative procedural law applies. In the Commission’s view, the right to appeal laid down in the Framework Directive goes beyond the addressee of the decision. However, Swedish administrative procedural law appears to impose stricter conditions than the Directive on who has the right to appeal. The Commission therefore decided in October 2006 to send a letter of formal notice to Sweden, stating its concerns about Swedish implementation of the Framework Directive in that regard.

## **Decision-making**

In dispute-resolution procedures PTS now generally keeps or nearly keeps to the four-month deadline for decisions provided in Article 20(1) of the Framework Directive. Operators are relatively unconcerned about this point. The Karlström Commission nevertheless proposes more far-reaching powers for PTS to request information and background material from parties in order to be able to further improve punctuality. The Competition Authority has been receiving more complaints from the sector as a consequence of the de facto absence of sector-specific regulation while PTS decisions make their way through the judicial system. It is nevertheless difficult for the Competition Authority to take up complaints based on market

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<sup>116</sup> The Karlström Commission takes the appeal of the SMP decision in the wholesale broadband access market on 24 November 2004 as an illustrative example of a long and complicated procedure. The decision was appealed against to the Stockholm County Administrative Court, which suspended the decision for the duration of the appeal. On 20 April 2006 the Court ruled in favour of PTS and removed the suspension. On 3 July 2006 the Administrative Court of Appeal decided not to grant the incumbent an appeal against that ruling. This verdict was in turn appealed against to the Supreme Administrative Court, which on 28 July decided to examine the question of whether the Administrative Court of Appeal should have granted an appeal. The Supreme Administrative Court then again suspended PTS’s decision. However, on 1 February 2007 the Supreme Administrative Court dismissed the appeal, finally giving effect to the agency’s decision to regulate the Swedish wholesale broadband access market.

problems which are already the subject of an appealed-against (and not unlikely suspended) PTS decision intended to remedy the problem.

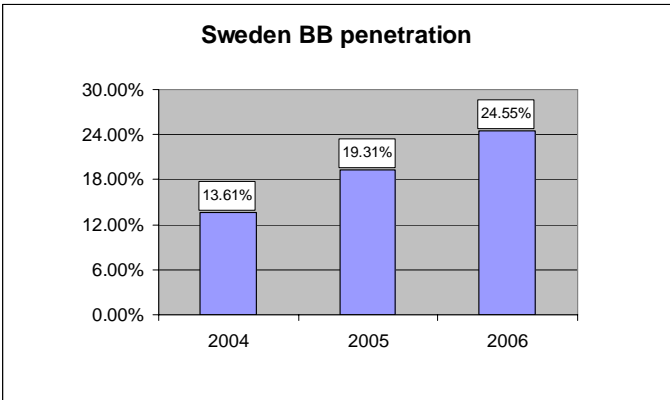
## MARKET AND REGULATORY DEVELOPMENTS

Consolidation of the Swedish electronic communications market continued in 2006. Four larger Nordic groups seem to be emerging as the main players in the sector. The new Government elected in September 2006 declared its intention to sell the State's remaining shares (approximately 45%) in the incumbent, but the timetable remains open. Now that much of the 3G and digital terrestrial networks have been rolled out, investment attention appears to be focused in particular on fixed broadband. However, the incumbent has so far not publicly announced any major next-generation network buildout initiative. Major infrastructure investments have been made by locally established companies running urban or local networks, three quarters of which are publicly owned and often operated by the local power grid companies. While these companies have different business models, 95% offer dark fibre. Such networks include approximately 570 000 FTTH installations to approximately 13% of Swedish households.<sup>117</sup>

Sweden historically has a very high level of fixed telephony subscriptions, and even though mobile phone ownership appears to be the highest in the EU, fixed-to-mobile substitution in the sense of cancelling fixed subscriptions has not taken off to the same extent as in countries like Finland. Nevertheless, according to data from PTS, the share of the population that only uses a mobile phone increased from 4% to 7% from October 2005 to October 2006, and called mobile minutes grew 26% in the first half of 2006 compared to the same period a year earlier.

### Broadband

#### Market situation

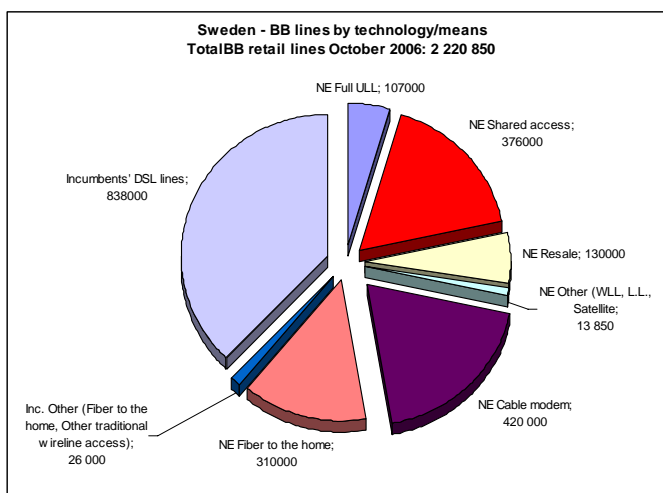


In October 2006 Swedish broadband penetration in terms of subscriptions per inhabitant was 24.6%, making it fourth within the EU but last among the Nordic countries. The number of broadband subscribers in Sweden grew by around 40% between 2005 and 2006, while total revenue from broadband services, according to PTS, grew by 25% during the same period, indicating price pressure. Broadband

take-up is in a strong growth phase that operators generally estimate will continue over the next 18 months, after which the market could begin to saturate. The share of technologies other than xDSL was relatively stable in the last 15 months to October 2006, with around one third of all subscriptions.

<sup>117</sup> Swedish Urban Networks Association (SSNf), Report October 2006.

The incumbent's share of broadband subscriptions in October 2006 was 39.6%, a slight retake of market share from January's 38.4%. In 2004 the incumbent had 40% of the market. In July 2006 the main competitor's two subsidiaries together had 26% of the retail market. Negotiations between the incumbent and the alternative operators on a local exchange access framework agreement began in the winter of 2006 within the context of a SITO<sup>118</sup> workgroup. The agreement has been in place since September 2006 in the form of a "manual" which includes cost sharing for collocation, adaptation of exchanges, rearrangements and space sharing. It remains to be seen how the agreement will work over time and in practice.



### *Regulatory issues*

Despite industry efforts LLU compliance control remains an important challenge for PTS. Connection prices for fully unbundled local loops are among the highest in the EU. Alternative operators are increasingly using unbundling in more densely populated areas. However, many subscribers are connected to small main distribution frames (MDFs). These can be located both in sparsely and more densely populated areas. According to PTS, an MDF would need more than 5 000 connected subscribers to be able to sustain more than one co-located operator commercially. More than 40% of the Swedish population are connected to MDFs with fewer than 5 000 connected subscribers, and 83% of Swedish MDFs serve fewer than 500 subscribers.

While the decision to regulate the wholesale broadband access market was taken in 2004, there was still no regulated product in 2006 as the appeal case – described above – worked its way through the administrative court system with the appealed-against decision suspended. The incumbent did not offer wholesale bitstream access, but an alternative operator provided it in some local exchanges where it has its own equipment. The incumbent is still offering a resale service for its original ADSL product, but is no longer expanding that service and instead focuses on building out ADSL2+, which increases the bandwidth substantially and/or the possible distance between the exchange and the end-user, depending on the configuration. However, a resale service is not offered for ADSL2+. In any case, resale has its limits as a platform for providing VoIP and IP-TV.

The PTS decision (as part of the remedies in the markets for access to the public telephone network at a fixed location) that the incumbent must provide "naked DSL" – broadband access without the condition that there is a phone line subscription – was appealed against and suspended in court until May 2006. Although the court at that time upheld the decision, in the absence of any regulated wholesale broadband access product it did not have a major impact and operators took advantage of it only to a limited extent.

<sup>118</sup> Swedish IT Companies Organisation.



## **Mobile markets**

### *Market situation*

Mobile call prices continue to be pressured by competition. In an EU-wide Eurobarometer study for the Commission in November 2006, 95% of those polled in Sweden said they owned a mobile phone, thus making Sweden the country with the most widespread mobile phone ownership in the EU. Forty percent of those responding that they own a mobile phone in Sweden said they (only) used a pre-paid card with their mobile phone. There are four mobile network operators providing GSM services, including one focused on in-door usage, and four mobile network operators providing UMTS (3G) services. There are a number of mobile service providers, but their total market share is low and they are generally niched towards specific user groups such as students, or are part of a fixed operator's effort to provide a complete telecoms package to corporate clients. The incumbent's market share has been relatively stable at under 50% over the last couple of years. By the end of 2006 3G operators covered around 98% of the population as compared to approximately 85% in March 2005.

### *Regulatory issues*

The legal uncertainty regarding mobile termination regulation remains in part. The SMP decisions by PTS on the wholesale mobile termination market in 2004 subjected all mobile network operators to regulation. The decisions are currently being appealed against at the Stockholm Administrative Court of Appeal (the second instance) but remain in force. However, the decision by PTS – in line with its glide-path policy – to impose a 63-öre (approximately €0.07) wholesale mobile termination fee on all SMP operators, except for a new entrant, has been suspended for the duration of the SMP appeal cases.

## **Fixed**

### *Market situation*

More or less as envisaged, the foremost effect of the successfully implemented WLR reform seems to be less churn among alternative telephony providers rather than large cuts in the retail subscription price. IP-telephony over own infrastructure (for example cable-TV and new local area networks) has, on the other hand, contributed to the continued substantial decrease in the cost of fixed telephony. According to PTS data, in July 2006 23% of fixed telephony subscriptions were provided by an operator other than the incumbent, compared with 14% a year earlier. Moreover, broadband telephony subscriptions more than doubled during the same period and now make up 5.5% of all fixed telephony subscriptions. In October 2006 there were more than 400 000 ported fixed numbers, as compared to under 200 000 a year earlier (confidential market share data).

### *Regulatory issues*

The price-control decision on wholesale fixed termination was upheld by the first-instance court but is currently under review and suspended by the second instance. On 3 October 2006 PTS decided that the wholesale market for trunk segments of leased lines was effectively competitive and was, therefore, to be free from regulation. No appeal was made against the

decision, but it must be noted that the relevant court dismissed an earlier attempt to appeal against an SMP decision initiated by an operator other than the SMP operator<sup>119</sup>.

## **Broadcasting**

### *Market situation*

According to a report prepared for the Commission in 2006<sup>120</sup>, approximately 26% of Swedish TV households were using terrestrial, 21% satellite- and 53% cable-TV reception at the end of the third quarter 2005. At that time, approximately 12% of all TV households – or slightly below half of all terrestrial households – were using digital terrestrial reception. In spring 2006 four digital TV multiplexes covered approximately 98% of the Swedish population and a fifth multiplex approximately 50%<sup>121</sup>. Digital switchover in Sweden is progressing in stages. The 5th and final stage – when terrestrial analogue transmissions shut down for the last 33% of the population and digital terrestrial coverage for public service channels will be 99.8% – is to take place in October 2007. By October 2006 the Government had granted a terrestrial digital broadcasting licence to approximately 40 TV channels.

Market players' responses to a Radio and TV Authority questionnaire in 2006 indicated that Application Program Interfaces (APIs)<sup>122</sup> and Electronic Programme Guides (EPGs) were growing in importance by comparison with 2005, when interest was low. The Authority previously supported the MHP standard, but has since revised its position as it is evident that there is now more than one feasible standard to be considered. The end result could be two proprietary standards.

### *Regulatory issues*

Decisions were taken on 15 December 2005 concerning obligations for the SMP operator (the state-owned provider of terrestrial transmission services) in the markets for analogue and digital terrestrial television broadcasting respectively and analogue terrestrial radio broadcasting. The decisions were appealed against but were upheld at first instance, and are in force while being tried at second instance. The obligations include cost-based services for broadcasting operators as well as wholesale transmission access.

In the related infringement procedure regarding exclusive broadcasting transmission rights – further detailed in the 11th Report – the Commission decided in October 2006 to take Sweden to Court for its failure to change rules giving a state-owned company a monopoly to provide access control services in Sweden's digital terrestrial broadcasting network. While the Commission welcomed the Swedish Government's agreement in principle to modify its broadcasting legislation, Sweden has so far failed to abolish the monopoly. The Swedish Government announced that it is working on a legislative proposal to address the matter, and expects the new legislation to enter into force on 1 January 2008.

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<sup>119</sup> See Organisation of the NRA, above.

<sup>120</sup> Dataxis 2006, Digital Television Data – EU Market for Digital Television.

<sup>121</sup> See <http://www.teracom.se>; and Statens Offentliga Utredningar: *Sveriges övergång till digital-TV*, Digital-TV-Kommissionen.

<sup>122</sup> The software interfaces between applications, made available by broadcasters or service providers, and the resources in the enhanced digital television equipment for digital television and radio services.

## **Horizontal regulation**

### *Spectrum management*

Sweden has declared that it has implemented the Commission's Decisions on spectrum harmonisation for short-range radars (SRR) for cars and Radio-LANs. It is in the process of implementing the Commission's Decision on the frequencies formerly used for the ERMES pan-European paging system. The Commission services are currently assessing the completeness of Sweden's implementation of these decisions.

In October 2006 PTS published its new spectrum policy. The objective of the policy is to ensure efficient use of spectrum and a competitive range of services for customers. The agency should be as technology- and service-neutral as possible, make use of auctions in selection procedures, make trading easy, and where possible apply licence exemptions or a simplified licensing procedure. The policy also envisages rapid implementation of international agreements. Spectrum trading is already allowed, but is used to a limited extent mostly in the area of public land mobile radio (for example taxi services).

In September 2006 PTS published a report on potential use of the spectrum surplus from the digital switchover ("the digital dividend"), which is to be completed at the end of 2007. According to the report, the switchover will free up at least 189 MHz. The report concludes that there are several realistic alternative uses, and that international coordination has great value. According to the report, developments should not be impeded by hasty decisions, and deliberations with interested parties must be held beforehand.

## **THE CONSUMER INTEREST**

### **Tariff transparency**

PTS continues to run its web-based price comparison service for most kinds of electronic communications services to consumers.

### **Universal service**

PTS received a number of complaints regarding requests for connection at a fixed location to the public telephone network, but was unable to process them as its decision in 2005 to designate a universal service provider is still being tried in court and has been suspended in the meantime.

The PTS strategy for services to people with disabilities involves influencing stakeholders to provide tailored services to people with special needs. At the same time, it procures eight separate services to disabled consumers, and is running trial stages of several more. Two former trial-based services have been taken up as regular procured services: a sign language translation service based on 3G video calls (an interpretation centre translates bi-directionally between sign language and voice communication) and the distribution of digital voice books from an electronic archive accessible by nearly all public libraries.

## **Emergency services (112)**

Sweden is in the process of implementing a combination of “push” and “pull” techniques for caller location identification depending on the network being used. 112-recognition is very high. Awareness-raising efforts have been made in strategic media such as on the back of milk cartons. During a two-year trial financed through PTS, 112 is also available as an SMS service strictly for people with hearing or speech impairments.

## **Number portability**

In October 2006 there were 2 million accumulated ported mobile numbers, as compared to 1.3 million a year earlier. In October 2006 there were more than 400 000 ported fixed numbers – compared to under 200 000 a year earlier – as users took advantage of the WLR reform and IP telephony on alternative access networks.

## **Must-carry**

As noted in the 11th report, cable-TV operators may – as a consequence of rules revised in 2005 – be required to pay intellectual property organisations for re-transmission of content in must-carry channels. However, cable-TV operators now have a barter-type agreement with the public service broadcasting company (SVT) whereby SVT takes care of such payments.

## **Consumer complaints and out-of-court dispute resolution**

The Consumer Agency includes the office of the Consumer Ombudsman, which can lodge cases with the Market Court. So far that court has not had any cases related to broadband. As described above, the Agency’s work has been constrained by its relocation. More positively, the new Consumer Bureau for Telecom and internet was set up in 2006 and is funded by SITO. Providing advice and information to consumers, it also has the potential to serve as a form of de facto alternative consumer-dispute resolution mechanism. The bureau can be expected to relieve PTS of some of its consumer counselling and complaints-related work, but it will not run a price database.

## **Data protection**

PTS is active in the electronic communications data protection area and for a long time now has had a network security department in place including SITIC, the Swedish CERT<sup>123</sup>. Several reports have been published in English – such as on spam, spyware and closely related phenomena and on security threats to mobile telephony from a user perspective. PTS has a well evolved site on network security and integrity aimed at consumers, and publishes brochures on topics such as how to protect your home-PC or use a wireless network safely. It also runs a free web-based diagnostics service for consumers (“Test Your Computer”) to determine the safety level of their online computer, coupled with advice on improvements.

In the field of network integrity, PTS produced draft guidelines on good function operation and technical security for providers of public communications networks and services. The guidelines contain recommendations on security work in the form of risk analyses and risk management as well as preparedness and follow-up regarding interruptions and disturbances.

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<sup>123</sup> Computer Emergency Response Team.

In the data protection and retention area there is operator concern that divergent regimes in Member States prevent technical integration of operations in countries of presence. Different systems used in order to comply with different national requirements translate into higher costs for operators' cross-border operations.

## UNITED KINGDOM

### INTRODUCTION

Over the last year the United Kingdom electronic communications sector saw intensifying competition and significant restructuring and consolidation, as the larger operators seek to position themselves to compete in a converging broadband environment in which it is considered necessary to offer the customer a full range of services, combining products (internet access, audio-visual services and voice telephony, both fixed and mobile) previously provided over separate infrastructures or by separate providers. This intensifying competitive activity has been accompanied by a significant increase in the number of broadband lines in the United Kingdom and, in particular, in the take-up of local loop unbundling by a number of key players in the broadband market. It has also been reflected in intensifying price competition at retail level, including the launch of packages offering “free” broadband access as part of a wider bundle of services.

These developments took place against the backdrop of (i) operational separation of the fixed incumbent’s access network business, through the creation of Openreach, and (ii) progress towards its delivery of key access products to communications providers in a manner intended to guarantee equivalence of input, as provided for by its undertakings to Ofcom in autumn 2005, following the latter’s Telecommunications Strategic Review. While the broadband sector’s dynamism could be said to reflect confidence in the regulatory settlement arising from Ofcom’s Strategic Review, implementation of the fixed incumbent’s undertakings is still in a transitional phase and it is too early to draw conclusions as to the final impact of the regulatory settlement achieved.

### REGULATORY ENVIRONMENT

#### Main regulatory developments

Implementation of the fixed incumbent’s undertakings regarding the operational separation of its access services division, and the achievement of equality of input to the wholesale products requested by its competitors, has been a major organisational challenge, involving some tens of thousands of employees, and has inevitably had an effect on the ongoing delivery of its wholesale products.

Against the background of the operational separation of the fixed incumbent’s local access network and its Enterprise Act undertakings to Ofcom, which go beyond the obligations imposed as SMP remedies, there has also been a continued trend for the fixed incumbent to offer voluntary commitments to the regulator as a means of satisfying regulatory concerns without the need for regulation itself. While in many ways this can be seen as a positive development, increasing speed, flexibility and limiting the need for formal intervention, this approach can on occasion lead to a perception by third parties of a ‘special relationship’ between the fixed incumbent and the regulator which is not subject to the same level of transparency and third-party participation as may be afforded by more formal regulatory action. The issue of transparency and third-party consultation has arisen also in relation to some exemptions granted by Ofcom from timing commitments covered by the fixed incumbent’s Enterprise Act undertakings.

## **Organisation of the NRA**

Ofcom's independence in the exercise of its statutory tasks remains unchallenged. The Chairman and non-executive directors can be removed from office only on grounds of bankruptcy, prejudicial conflicts of interest, misbehaviour or incapacity.

In general Ofcom is seen to retain staff with a high degree of expertise. However, some operators whose business is spectrum-reliant have stressed that there will be a growing need for staff with the relevant technical and engineering expertise, as the process of spectrum liberalisation and trading gathers pace and the need to make technical assessments of the risks of interference becomes more critical.

Ofcom's dual competence as a regulatory and competition authority is seen as one of its major strengths. However, others indicate that a tension may arise between these two roles. For example, the regulator's willingness to take strong enforcement action under the competition rules may be constrained by a reluctance to call into question the effectiveness of the regulatory remedies that it has itself established, often through a process of negotiation with the incumbent. The settlement reached with the fixed incumbent following Ofcom's Telecoms Strategic Review could be seen as an example of an area where this potential tension could arise. Nevertheless, Ofcom did exercise its powers under the Competition Act in October 2006 by issuing a supplementary Statement of Objections in the long-running investigation into the fixed incumbent's retail broadband pricing.

Alternative operators have identified Ofcom's lack of power to impose interim measures in dispute-resolution procedures as a limit on such procedure's full effectiveness.

## **Decision-making**

As regards the process of market analysis and review of obligations required by the EU framework, Ofcom had already completed the first round of notifications back in June 2004, apart from the market on international roaming (market 17). Ofcom has taken final measures in each notified market.

The second round of notifications started in 2006 and so far covers the markets for wholesale international services as well as the markets for voice call termination on mobile networks.

In November 2006 it also launched an in-depth consultation on its second review of the wholesale broadband access market, including proposals to define three categories of geographical market, differentiated by the different number of competitors in the local exchanges and the number of homes or businesses served, with the possibility of differentiated remedies applicable in the different market categories.

The remedies put in place for operators with SMP have tended to be a relatively comprehensive range of those provided for by the framework. However, Ofcom has also taken some significant de-regulatory steps to reflect its assessment of the improved competitive conditions in certain markets, notably the lifting from the fixed incumbent, with effect from 1 August 2006 (after more than 20 years), of retail price controls derived from its SMP in the fixed narrowband retail services markets. These deregulatory measures were linked to the SMP operator's provision of regulated products such as wholesale line rental to a standard deemed fit for purpose by the regulator. In agreeing to lift these price controls Ofcom also took account of a number of assurances from the fixed incumbent relating to the

pricing of the line rental (i.e., the monthly fixed fee) that it charges for its basic exchange line services, and to the pass-through of savings from lower mobile termination rates.

Following the conclusion of the Strategic Review there has been an increased focus by the regulator on consumer issues. This has produced a number of initiatives, such as on the regulation of calls to non-geographic numbers and measures to facilitate switching between suppliers. Ofcom has also been active in investigating breaches of the rules relating to mis-selling and the abuse of automated calling equipment, and has taken enforcement action in a number of cases.

As far as Ofcom’s role in dispute resolution is concerned, it has made determinations within four months of accepting a dispute for resolution, except in the case of a set of grouped disputes (two) relating to directory enquiries, where Ofcom concluded that there were exceptional circumstances that precluded resolving these disputes within four months. Ofcom published its draft determination in relation to those disputes in October 2006 and expects to publish a further statement about the disputes early in 2007.

The number of decisions by Ofcom under the Communications Act which are subject to appeal remains relatively small. The time frame for conclusion of such appeals has ranged from just under seven months to 16 months. It is worth noting that in relation to Ofcom’s decisions under national competition law, the Court of Appeal made an important ruling in June 2006, to the effect that the Competition Appeal Tribunal (CAT) does not have the power to set a deadline for Ofcom to retake a decision remitted to it where the CAT has set aside Ofcom’s original decision.

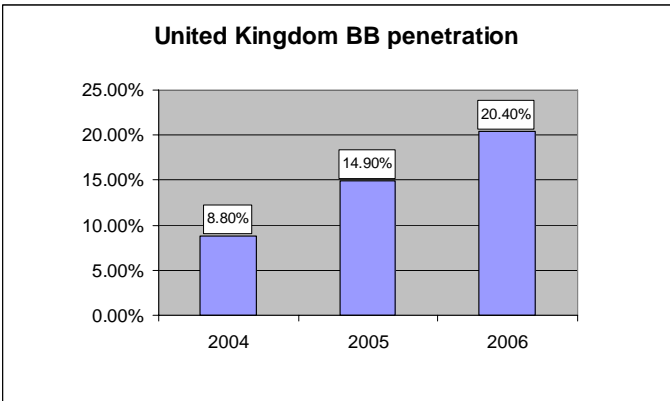
To date the principles that would apply for the appeal body to determine which categories of third parties have a “sufficient interest” to give them the right of appeal against an Ofcom decision under the regulatory framework have not been tested in practice.

However, despite the general robustness of economic and consumer regulation as applied by Ofcom, some problematic regulatory issues still await clarification, such as the regulatory treatment of mobile gateways, changes to the arrangements for number portability and the legal framework applicable to the provision of directory information.

**MARKET AND REGULATORY DEVELOPMENTS**

**Broadband**

*Market situation*



The UK broadband market has seen a period of intense growth and retail price competition during the reference period, which has put operators’ profit margins under pressure, to the extent that a number of operators are offering bundles of converged products (such as voice telephony or IP TV), including “free” broadband connection. This means that economies of scale and scope and vertical integration are

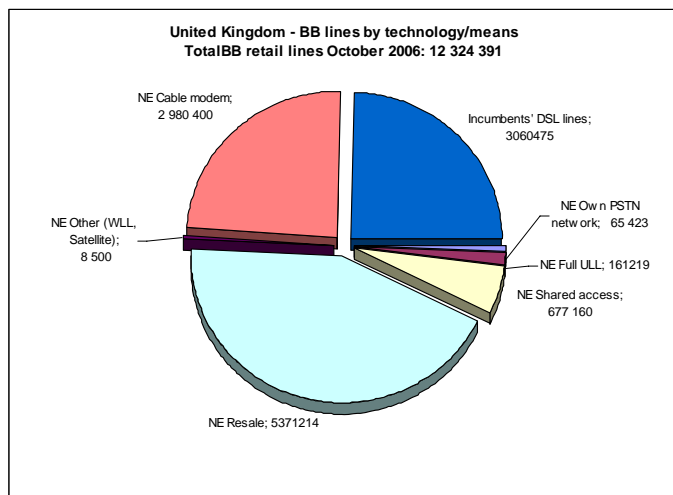


increasingly seen as key prerequisites for success in the broadband market.

This is reflected in the spate of recent consolidation activity in the United Kingdom over the past year, as the major operators seek to acquire the capabilities to provide a full, integrated bundle of broadband products, involving broadband internet access, voice telephony, audio-visual services and mobile communications. The restructuring of the market has taken a number of forms, such as the merged cable network operator's acquisition of a major mobile service provider, and the entry (by means of acquisitions) of a satellite broadcaster and a further mobile network operator into the fixed broadband access market – using unbundled local loops. On the other hand, another mobile network operator has chosen to enter the fixed broadband market by means of a wholesale product from the fixed incumbent, rather than through investing in local exchanges itself.

Likewise, operators are vying to exploit the anticipated demand for converged broadband services through the launch of new, integrated packages including IP telephony, video on demand and IP TV broadcasting services. Access to content is becoming increasingly critical in this highly competitive area, with market players scrambling to make the necessary tie-ups to guarantee availability of premium content.

At the same time the mobile network operators are developing mobile TV and other content services for delivery over mobile devices. While a number of these operators are also seeking to offer their customers a range of services including a fixed broadband element, the new entrant 3G operator has focused on offering an open platform approach to mobile internet access via the mobile device.



At the infrastructure level, the total number of broadband lines (excluding mobile) in the United Kingdom grew to 12.3 million in October 2006, representing 20.4% of the population, while Ofcom announced in November 2006 that the landmark of one million unbundled lines had been reached. This compares with under 111 000 unbundled lines in October 2005. The fixed incumbent's share of the retail broadband market is among the lowest in the EU, at 25%, and it has seen a drop in its share of new broadband subscribers as local loop unbundling gathers pace. It should be noted, however, that resale of the incumbent's broadband offering (whether by means of bitstream access or simple resale) retains the largest single share of the market.

Although there is currently no “naked DSL” offering on the market, in November 2006 the fixed incumbent initiated a consultation process with other operators on the anticipated requirements and demand for such a “Broadband Line Access” product.

ADSL over the fixed access network represents the lion's share of broadband lines in the United Kingdom (around 75% of the total), while cable accounts for approximately one quarter of broadband lines.

The United Kingdom has also seen significant growth in the use of WIFI technologies to provide broadband access in key hotspots, with Ofcom reporting that the UK has the highest number of WIFI hotspots per 100 000 people among the major national communications markets surveyed<sup>124</sup>. WIMAX technologies have yet to see major deployment in the United Kingdom, but this is expected to gather pace in the coming months.

#### *Regulatory issues (including market analyses and remedies)*

The SMP remedies imposed in the wholesale local access market, combined with the fixed incumbent's undertakings on the delivery of equality of access following the Telecoms Strategic Review and the work of the Office of the Telecommunications Adjudicator (who has driven the processes needed to ensure industrialisation of the unbundling process), have underpinned the market demand for LLU and translated into significant increases in unbundled lines. Nevertheless, the process of achieving mass take-up of unbundling has been difficult and the Telecommunications Adjudicator on occasion expressed concern about the fixed incumbent's delivery with regard to key performance indicators. One of the key areas where Ofcom have identified the need for further improvement is in the capabilities and quality of the equivalence management platform, the operational support system which underpins the delivery of equivalence by Openreach.

In order to improve the consumer experience of switching broadband provider, Ofcom has imposed measures to improve the facility with which customers can switch between providers, through a requirement for suppliers to provide a Migrations Authorisation Code (MAC) on request. The MAC is needed for customers to be able to switch providers without loss of service during the transfer.

In November the fixed incumbent gave commitments to Ofcom regarding the pricing of its key wholesale broadband products from May 2007, when it is expected that 1.5 million lines will have been unbundled, as well as its NGN wholesale broadband products intended to come on stream in 2008. These commitments are intended to allow for price reductions for the incumbent's wholesale customers while ensuring stability in the local loop unbundling market. In addition, the main fixed incumbent made voluntary commitments for a price ceiling to address the possibility of high prices in less competitive areas. This is an example of voluntary commitments made by the fixed incumbent aimed at avoiding the need for more detailed regulatory intervention.

In November 2006 Ofcom launched a document for discussion with industry on the regulatory challenges posed by next-generation networks, with a view to preparing the way for its future reviews of the relevant markets affected.

## **Mobile markets**

### *Market situation*

The high degree of competition in the retail mobile market can be seen both in the continued decrease in mobile prices and the fact that the four established 2G network operators continue to have market shares within a few percentage points of each other. The United Kingdom also has a relatively high number of MVNOs and other service providers active on the mobile

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<sup>124</sup> Ofcom's International Communications Market Report, November 2006.

market, which (according to figures provided by Ofcom) represented about 13% of total mobile subscribers at the end of 2005.

A number of mobile providers have launched broadcast television services for mobile phones during the year, while others favour the provision of televisual services by means of streaming technology.

#### *Regulatory issues (including market analyses and remedies)*

In its second-round market review of the mobile termination markets launched in September 2006, Ofcom is proposing that revised charge controls should apply for four years from 31 March 2007, with reductions by means of a glide path in four equal (percentage) steps across the four years. The regulated average charge levels would be differentiated as between the four more established mobile network operators and the new entrant operator. Ofcom also announced that it will carry out an analysis of the market for SMS termination services in the course of 2007.

One of the key regulatory challenges facing Ofcom with regard to the mobile market is how to handle liberalisation of the existing 2G spectrum (GSM 900 and DCS 1800) currently in the hands of the four more established network operators. The different players in the mobile market have conflicting views, depending on their current spectrum holdings and market position, on how to ensure the most equitable and efficient use of these frequencies when they are redeployed for other uses and technologies.

Another regulatory issue affecting the mobile market and requiring clarification relates to the legal status of mobile gateways in the United Kingdom. A judgment by the Competition Appeal Tribunal in August 2006 held, in the context of an individual case, that contrary to Ofcom's previous determination, the licences held by the GSM mobile network operators did authorise the operation of mobile gateways for commercial purposes, when read in the light of the applicable Community law requirements. Ofcom has applied to the Competition Appeal Tribunal for permission to appeal to the Court of Appeal against this judgment. The Commission will follow developments in this area closely in the light of the relevant provisions of the RTTE Directive and the Authorisation Directive.

### **Fixed markets**

#### *Market situation*

The comparative intensity of competition in the fixed market from an EU perspective can be seen in the fact that the United Kingdom has the highest number of operators (11) making up 90% of the fixed telephony market by retail revenue, and is mirrored in the fact that the fixed incumbent has among the lowest incumbent market shares in the local and national fixed calls markets. The consolidation of the two primary cable operators during the year has also boosted the challenge from alternative infrastructure providers; the United Kingdom has the highest percentage in the EU (among those Member States which supplied data) of subscribers using an alternative provider for direct access.

At the same time, interconnection charges for call termination on the incumbent's fixed network are now the lowest in the EU countries which supplied data, in all three categories (local, single transit and double transit).

#### *Regulatory issues (including market analyses and remedies)*

While carrier pre-selection (CPS) has been the mainstay of competition in the fixed market for some years, the number of lines subject to CPS in the United Kingdom has seen a decline for the first time (dropping by 0.16% from August 2006 to October 2006). This is likely to be the result of the growth of full LLU services (which provide voice and broadband services without the need for CPS). Demand for wholesale line rental (WLR) continues to grow.

A new version of the WLR product (WLR3), designed to meet the criteria for equality of access (as between the fixed incumbent's retail business and alternative operators) established by Ofcom's Telecoms Strategic Review, is due to become available from January 2007. Indeed, the incumbent has committed to offer a financial allowance to alternative operators if this deadline is not met. However, there is some uncertainty to what extent alternative operators will move to the new product immediately on that date, or whether they will wait to ensure that any remaining wrinkles in the product have been ironed out. Some alternative operators have alluded in this context to the tension that can exist between the need to ensure that key target dates covered by the incumbent's undertakings are met and the need to ensure that a fully operational and stable product is available at launch. The issue has also arisen in relation to the fixed incumbent's undertaking to provide its wholesale broadband product, IPStream, on an equivalent basis to industry by the end of December 2006.

## **Broadcasting**

### *Market situation*

Ofcom reports<sup>125</sup> that take-up of digital television continues to increase, with around 70% of households now having digital television.

As indicated above, one of the key market developments over recent months has been the acceleration in the process of convergence of communications products across different delivery platforms, including the launch of broadcast and pay-per-view products over fixed broadband (ADSL) networks. As this process develops, access to key programming content becomes increasingly important, and has driven new alliances and agreements in the broadcasting sector.

According to a report prepared for the Commission<sup>126</sup>, United Kingdom household television penetration by platform (analogue and digital) broke down as follows at the end of the third quarter of 2005: 54.1% terrestrial, 32.4% satellite, 13.3% cable and 0.2% IPTV.

### *Regulatory issues (including market analyses and remedies)*

In view of the above, there is a perception in the market that access to premium audiovisual content might increasingly become a barrier to entry. This would be as important for the communications markets over time as the bottlenecks previously identified in access to physical infrastructure (addressed through regulatory remedies and, in the United Kingdom, the functional separation of the incumbent's fixed access network). Vigilance in the exercise of the regulator's competition law powers is therefore seen as particularly important in this regard.

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<sup>125</sup> Ofcom Policy Evaluation: "The Consumer Experience - Telecoms, internet and Digital Broadcasting", Nov. 2006.

<sup>126</sup> Datisis Report on the EU Market for Digital Television 2006.

## Horizontal regulation

### *Spectrum management*

Ofcom has continued its programme of spectrum liberalisation and reform outlined in the conclusions of its Spectrum Review in June 2005, completing two spectrum auctions in 2006, both of which resulted in the issue of technology- and service-neutral licences (within certain technical limits) which are also tradable. These involved the grant of 12 licences in May 2006 for shared use of spectrum in the GSM/ DECT guard bands<sup>127</sup> (suitable for mobile services using low-power picocell technology) and a single licence in the 412 MHz band in October 2006, which went to a company which provides communication services for emergency services, government agencies and private companies. In the latter case, some operators regretted that the design of the auction allowed for one operator to receive the entire allocation of spectrum, although the Commission services note that this was not the only possible outcome.

Although spectrum trading has not taken off in large volumes (no doubt partly in anticipation of the availability of further spectrum from the regulator), a small number of spectrum trading transactions in the fixed wireless access area have taken place.

The United Kingdom took measures to implement the four Commission Decisions<sup>128</sup> adopted under the Radio Spectrum Decision harmonising spectrum in specified bands, with the exception of the high power part of the band covered by Decision 2005/928/EC, in relation to which Ofcom is still considering the most appropriate licensing arrangements. However, the UK Frequency Allocation Table (UK FAT) has not yet been updated to reflect these changes.

### *Rights of way and facility sharing*

The main instrument for facilitating electronic communications providers' acquisition of rights of way is the Electronic Communications Code, administered by Ofcom. However, planned secondary legislation designed to reduce traffic congestion will introduce an additional permit procedure for roadworks.

In October 2006 the Commission closed its state-aid investigation into application of the United Kingdom system of property tax (business rates) to telecommunications infrastructure, having concluded that the methodology applied to the valuation of the fixed incumbents' infrastructure did not undervalue their networks by comparison with those of their competitors.

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<sup>127</sup> 1781.7-1785 MHz paired with 1876.7-1880 MHz.

<sup>128</sup> Commission Decisions 2005/928/EC of 20 December 2005; 2005/513/EC of 11 July 2005; 2005/50/EC of 17 January 2005; and 2004/545/EC of 26 July 2004.

## **THE CONSUMER INTEREST**

### **Transparency**

At Ofcom's initiative a number of fixed voice telephony providers, working on a co-regulatory basis, launched an independent website ([www.topcomm.org.uk](http://www.topcomm.org.uk)) in July 2006 to provide residential and business users with comparative information on quality of service (ordering services, fault repair, complaints handling and billing accuracy). In a similar initiative, the four 2G mobile network operators launched a website ([www.topnetuk.org](http://www.topnetuk.org)) in September 2006 providing independently commissioned comparative information on each operator's voice quality and network performance on a geographic basis.

### **Universal service**

In March 2006 Ofcom issued a statement confirming its conclusions on its review of the universal service obligations first consulted on in 2005. This included details of the new scheme offered by the fixed incumbent for users on low incomes. This scheme is available for customers in receipt of Income Support, income-based Job Seeker's Allowance and Pension Credit. It also concluded that a Stakeholder Advisory Panel should be established for the text relay service for deaf, hearing-impaired and speech-impaired customers, that changes should be made to extend the range of disabled customers who can receive bills and contracts in special formats, and that some accessibility requirements for public call boxes should be increased. Some mobile operators, which have been required to ensure the availability of the text relay service on their networks also, questioned whether this solution met disabled customers' requirements in the most cost-effective way. However, Ofcom believes it is important that customers who use the text relay service should be able to communicate on the move in the same way that users of conventional voice telephony services can.

### **Directory services and directory enquiry services**

The Commission continues to monitor progress towards ensuring that all mobile subscribers who wish to have an entry in the comprehensive directory required by Article 5 of the Universal Service Directive have such a right. A letter of formal notice was sent to the United Kingdom in this regard in December 2005.

Further, the Commission notes Ofcom's provisional conclusion, announced in August 2006 as part of a dispute-resolution process, that the current universal service obligation imposed on the fixed incumbent to make available its comprehensive and aggregated database (known as OSIS) is unenforceable because it extends beyond the scope of its legal basis in both Community and national law. As a result, Ofcom has indicated that it will urgently review the position to ensure the United Kingdom is compliant with its obligations under Article 5 of the Universal Service Directive. The Commission will follow developments in this area closely to ensure that all the requirements of the EU directives relating to the universal service directory are transposed and applied correctly.

## **Number portability**

In response to concerns from new entrants that the current arrangements for number portability in the United Kingdom act as a disincentive for switching, and incur unnecessary conveyance costs (penalising operators which are net recipients of ported numbers), Ofcom launched a consultation in November 2006 on proposed changes to these arrangements. The proposals would involve changing the routing of calls to ported numbers by moving from the current 'onward routing' solution (where the call has to pass through the operator which originally assigned the number) to a more direct routing solution based on call-by-call query of a common database. The new mechanism would ultimately apply to both fixed and mobile number portability, but with earlier implementation for mobile numbers where it is considered that existing technology allows for a shorter implementation timescale (September 2009, as opposed to a deadline of end 2012 for fixed numbers).

The proposals would also include lowering mobile port lead times from the current five working days to either less than one working day or three working days, depending on the outcome of the consultation.

## **Non-geographic numbers**

There has been significant public concern over the lack of price transparency and the high charges paid by consumers for calling certain non-geographic number ranges, particularly when such numbers are used as the only or primary public contact point for corporations and government bodies and are a source of revenue generation for them (through revenue-sharing arrangements with the operator providing access to the number). In response to these concerns Ofcom made a number of decisions in 2006 following a review of the pricing structures applicable to non-geographic numbers and the numbering regime more generally. These include requiring telecommunications providers which originate calls to non-geographic numbers to give greater prominence to the applicable charges in published price lists and in promotional material, and to provide appropriate information to customers in relation to complaints handling and enquiries about premium rate services.

Ofcom has also announced changes to the pricing structure for calls to one category of non-geographic numbers, the 0870 range, which has generated particular concerns about pricing transparency and has been a cause of industry disputes. The changes will restore their link with the prices that apply for national calls to geographic numbers. In addition Ofcom will extend the role of the premium rate regulator ICSTIS to include calls made to the 0871 non-geographic range. These changes will take full effect at the beginning of 2008 in order to give time for the operators to prepare. Ofcom also announced the opening from early 2007 of a new range of UK-wide numbers, the 03 range, which will be charged at normal national rates and will be suited to the needs of many public bodies currently using chargeable 08 numbers.