

Implementation of the EU regulatory framework for electronic communications — 2015

INTRODUCTION

The European Commission's Digital Agenda for Europe (DAE)¹ formed one of the seven pillars of the Europe 2020 Strategy, which set objectives for the growth of the European Union (EU) by 2020. It defined in particular a strategy to take advantage of the potential offered by the rapid progress of digital technologies, in order to generate smart, sustainable and inclusive growth in Europe.

The Digital Agenda's main objective, which is also one of the ten priorities of the new Commission², is to develop a Digital Single Market. In order to achieve this objective, on 6 May 2015 the Commission adopted a Digital Single Market Strategy³. The strategy, which has a multiannual scope, focuses on key interdependent actions to be taken at EU level. The Strategy is built on three pillars, one of which is the creation of the right conditions for digital networks and services to flourish. This requires well-functioning markets that can deliver access to high-performance fixed and wireless broadband infrastructure at affordable prices. In this regard, the EU's telecoms rules aim to ensure that markets operate more competitively and bring lower prices and better quality of service to consumers and businesses, while ensuring the right regulatory conditions for innovation, investment, fair competition and a level playing field.

In the context of the Digital Agenda Scoreboard, which measures the progress of the European digital economy against specific goals set by the DAE⁴, the Commission services publish an annual staff working document describing the situation of the European electronic communications market and the state of implementation of the EU regulatory framework for electronic communications⁵, also in view of the forthcoming review of the telecoms regulatory framework announced in the Digital Single Market Communication. This staff working document complements the quantitative data of the 2014 Digital Economy and Society Index (DESI)⁶, in particular with regard to connectivity, and looks at a set of key regulatory areas.

¹ <http://ec.europa.eu/digital-agenda/digital-agenda-europe>

² http://ec.europa.eu/news/eu_explained/140715_en.htm

³ <https://ec.europa.eu/digital-agenda/en/news/digital-single-market-strategy-europe-com2015-192-final>

⁴ Here are just a few of the specific goals: the entire EU to be covered by broadband by 2013, the entire EU to be covered by broadband above 30 Mbps by 2020, 50 % of the EU to subscribe to broadband above 100 Mbps by 2020 (for a complete list see <http://ec.europa.eu/digital-agenda/en/digital-agenda-scoreboard>).

⁵ As defined in the glossary.

⁶ <https://ec.europa.eu/digital-agenda/en/download-scoreboard-reports>

1. MARKET OVERVIEW

1.1. Indicators

Broadband indicators (December 2011- 2014) — EU average ⁷		(Sources: IHS, VVA, Eurostat, Cocom)			
	2011	2012	2013	2014	
Fixed broadband coverage (% of homes)	95 %	97 %	97 %	97 %	
NGA coverage (% of homes)	48 %	54 %	62 %	68 %	
Fixed broadband take-up (% of households)	62 %	67 %	69 %	70 %	
Share of >30 Mbps subscriptions (% of fixed broadband subscriptions)	9 %	15 %	21 %	26 %	
Share of >100 Mbps subscriptions (% of fixed broadband subscriptions)	2 %	3 %	5 %	9 %	
Share of DSL in fixed broadband (% of fixed broadband subscriptions)	76 %	74 %	73 %	70 %	
Incumbent market share fixed broadband (% of subscriptions)	43 %	42 %	42 %	41 %	
HSPA Mobile broadband coverage (% of homes)	95 %	96 %	97 %	97 %	
LTE Mobile broadband coverage (% of homes)	8 %	27 %	59 %	79 %	
Mobile broadband penetration (subscriptions per 100 inhabitants)	47 %	54 %	64 %	72 %	
Market share of leading mobile network operator (% of subscriptions)	37 %	37 %	35 %	35 %	

The DAE set a target to ensure full basic broadband coverage by 2013. This has been achieved via different technologies. Coverage of fixed basic broadband networks stabilised in the last years. Mobile broadband via 3G networks has achieved a comparable coverage, with very limited differences across Member States⁸. Satellite networks offer ubiquitous coverage for the entire territory of the European Union⁹.

⁷ Sources: coverage data – studies by IHS and VVA; penetration data – figures gathered in the context of the EU Communications Committee (COCOM) for the Scoreboard of the Digital Agenda for Europe (except fixed broadband take-up, provided by Eurostat). Figures on fixed, NGA and LTE coverage, mobile market share and mobile broadband penetration for 2012 and 2011 and on speeds (30 and 100Mbps) for 2011-2013 refer to EU 27.

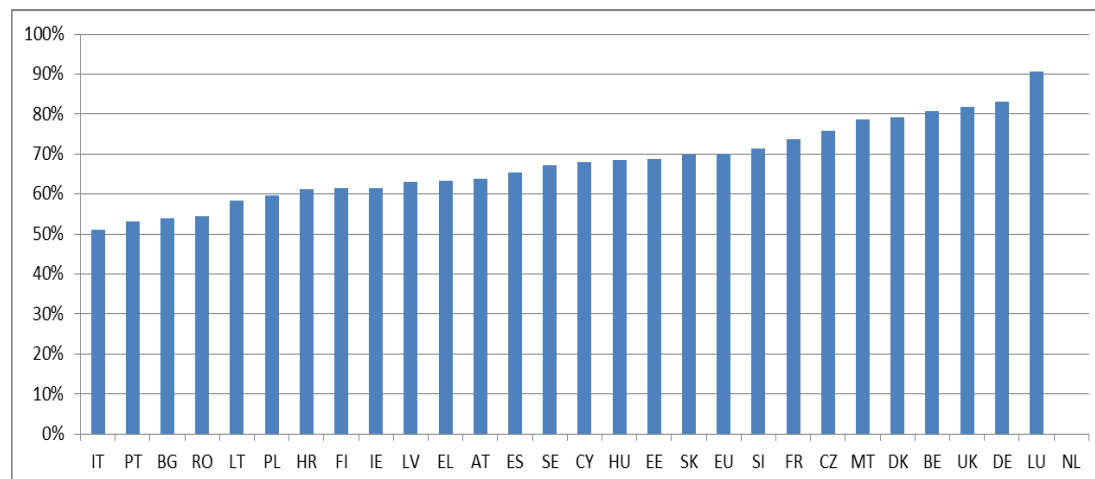
⁸ In 2014, all 28 Member States achieved HSPA mobile coverage above 90 %. For fixed basic broadband, in four Member States (Romania, Poland (where fixed coverage even slightly decreased), Estonia, Slovakia) the figure remains below 90 %.

⁹ http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=8238

Penetration patterns, however, remain very different for fixed and mobile broadband. While still progressing, the growth rate of fixed penetration is gradually slowing down (below 1pp).

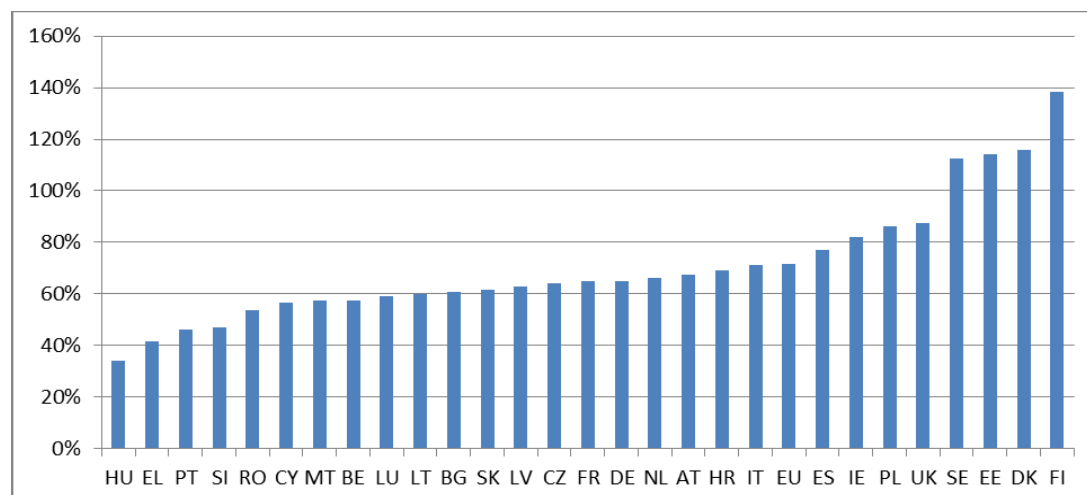
Fixed broadband take-up (as % of households), 2014

(Source: Eurostat)



Mobile broadband penetration, on the other hand, is maintaining a stable growth rate, although with larger variations across Member States than for fixed broadband. Moreover, there is a difference in the patterns of broadband penetration over fixed and mobile networks in different Member States. Some Member States with low fixed broadband penetration show a much higher mobile broadband penetration, and vice versa¹⁰.

Mobile broadband penetration (residential and business subscriptions as % of population), January 2015
(Source: Cocom)



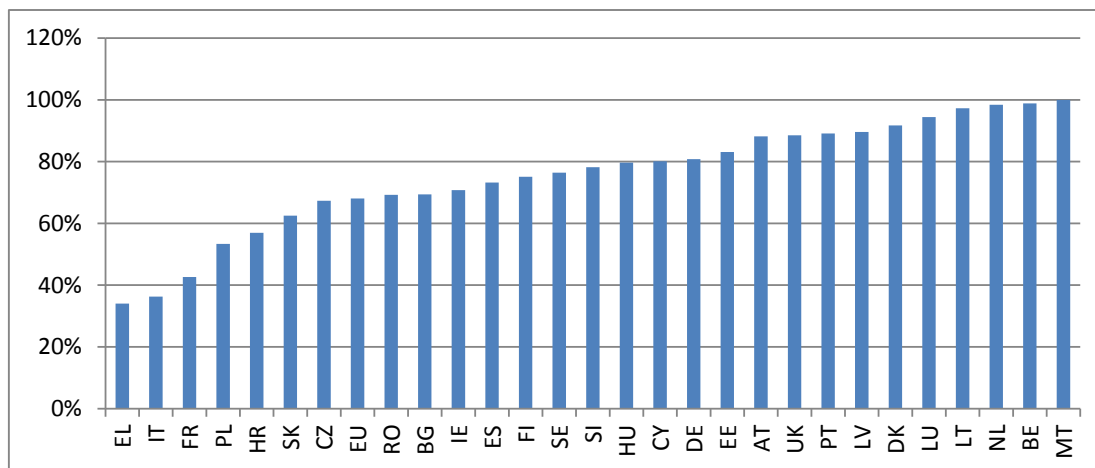
With regard to the more ambitious high speed broadband targets for 2020, the growth in NGA coverage remains substantial, with some Member States at the bottom end catching

¹⁰ E.g. Italy and Poland are in the first category, while Hungary, Slovenia, Luxembourg, Germany, Belgium and Malta are in the second.

up with the others¹¹. The overall growth, however, is slightly lower in 2014 compared with 2013.

Fixed NGA coverage as % of homes, end of 2014

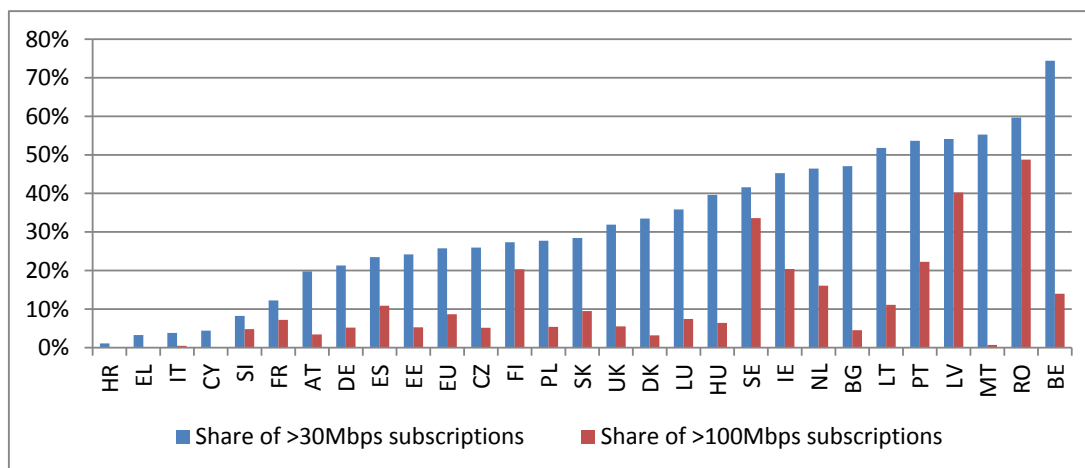
(Source: IHS, VVA)



In spite of the gradual extension of NGA networks, the growth in high speed broadband subscriptions (especially above 30Mbps download) slightly slowed in 2014 compared with previous years, while growth in very high speed subscriptions (above 100Mbps) remained stable. Overall, fixed high speed broadband penetration still varies significantly across the Union, with some Member States continuing to trail behind on NGA take-up¹².

Share of high speed subscriptions (>30Mbps and >100Mbps), January 2015

(Source: Cocom)

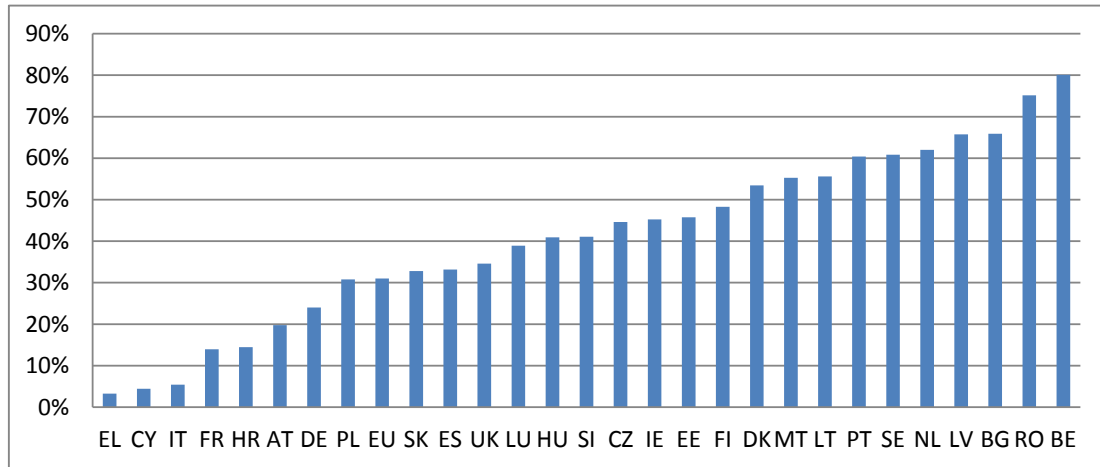


¹¹ Croatia, Italy, Slovakia and Ireland, and to a lesser extent Greece, had major increases.

¹² Italy, Greece and Cyprus.

NGA subscriptions as a % of total fixed broadband subscriptions, January 2015

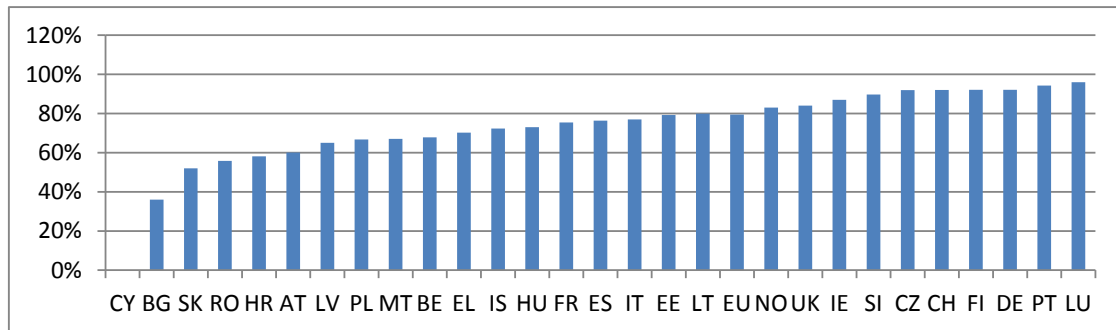
(Source: Cocom)



Finally, after a late start, LTE deployment is proceeding apace and its coverage is increasing, with several Member States reaching coverage of more than 90 % of homes¹³.

LTE coverage — end of 2014

(Source: IHS, VVA)



1.2. International comparison

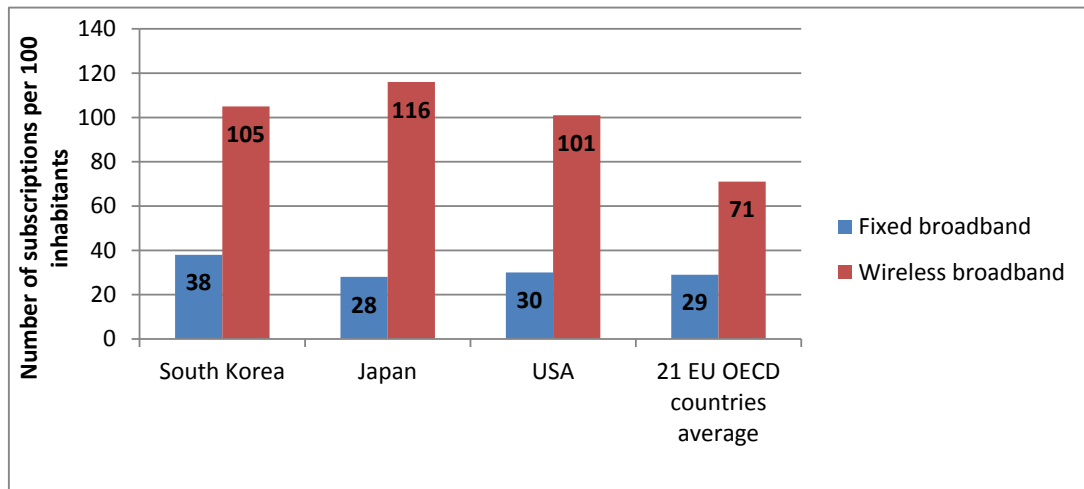
Comparison with non-EU countries shows some similar trends, but also some significant divergences. The trend in fixed broadband subscriptions in Japan, South Korea and USA is not very different from the situation in the EU. The number of fixed broadband subscriptions is increasing slowly but steadily, although the market seems to be reaching saturation point. In June 2014, Japan had 28 fixed broadband subscriptions per 100 inhabitants. In South Korea, this number was 38, and in the USA it was 30, whereas the subscription percentage per 100 inhabitants in the OECD EU countries was 29 %¹⁴. The percentage in Japan and the USA is similar to that in the EU OECD countries and displays similar trends¹⁵.

¹³ Slovenia, the Czech Republic, Finland, Germany, Portugal, Luxembourg, Denmark, Sweden and the Netherlands have reached near full coverage. On the other hand LTE services in Cyprus have not yet been launched.

¹⁴ According to COCOM data, the average number of subscriptions per 100 inhabitants for EU as a whole was 31 % in June 2014

¹⁵ OECD Broadband Portal: Fixed and wireless broadband subscriptions per 100 inhabitants.

OECD Fixed and wireless broadband take-up (subscriptions/100 people) (Source: OECD Broadband Portal)



The penetration of mobile broadband, on the other hand, seems far more advanced in these three countries and is growing in line with the increasing number of services enabled by 3G and eventually also by 4G. Japan, South Korea and the USA have seen substantial progress in the roll-out and take-up of 4G LTE and are all leading markets for 4G LTE. The countries all have substantially higher connection rates than in the EU¹⁶. However, after a slower start, also due to more fragmented spectrum assignments, roll-out and take up of 4G in Europe seems to catch up¹⁷.

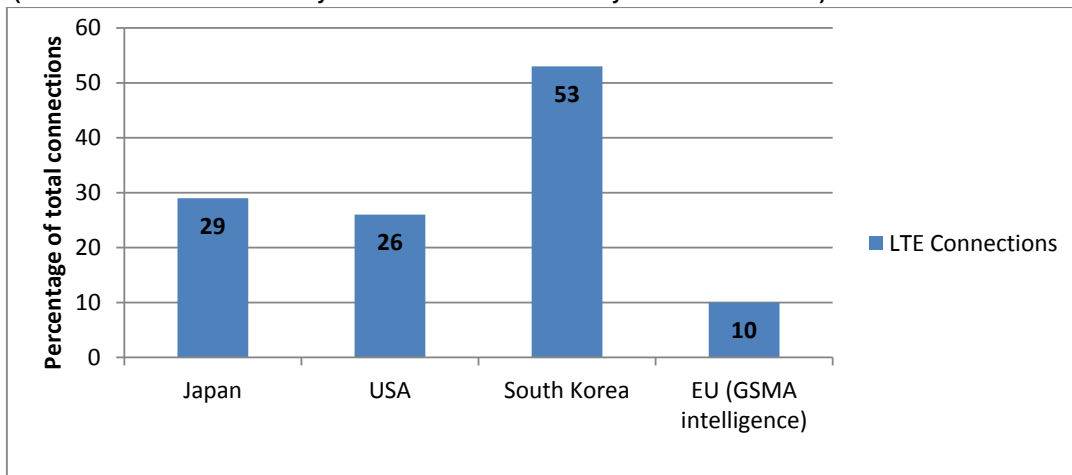
LTE is increasingly being deployed around the world. While the USA is the world's largest 4G market, with around 85 million 4G connections at the end of 2013 and plans to launch VoLTE in 2014, the country that is the most developed in this respect is South Korea.

¹⁶ GSMA: The Mobile Economy 2015:

http://gsmamobileeconomy.com/GSMA_Global_Mobile_Economy_Report_2015.pdf

¹⁷ See progress in LTE coverage above as well as FCC, *16th and 17th Mobile Wireless Competition Report*.

Percentage of 4G connections by market
(Source: GSMA Mobile Economy 2015 / GSMA Mobile Economy North America 2014)

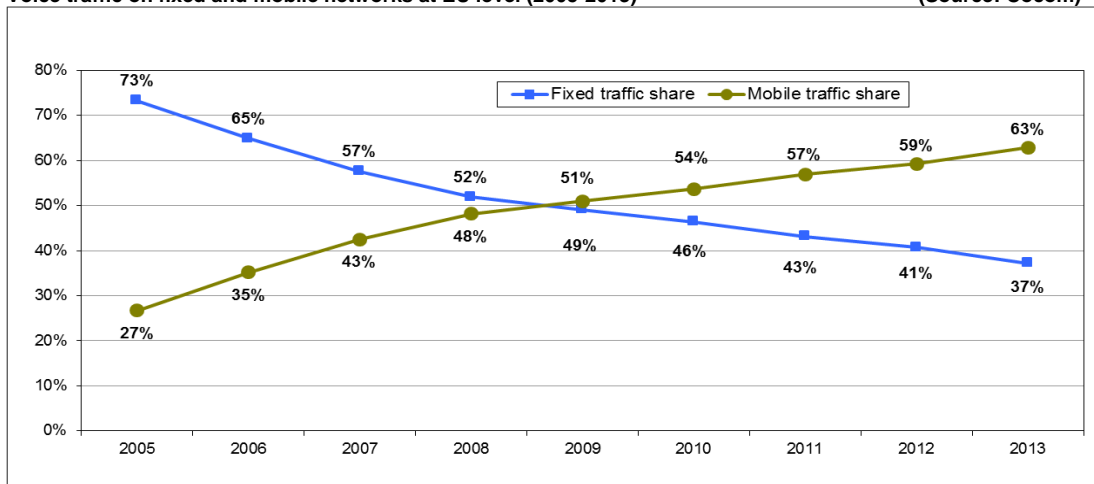


1.3. Market developments

On average, the shrinkage in the incumbents' market share slowed down EU-wide. The EU average for the incumbents' market share in fixed broadband (% of subscriptions) remains at 41 %, the same as in the previous reporting period. However, there are significant variations ranging from 23 % (Bulgaria) up to 69 % (Luxembourg).

The fixed voice market continued its overall decline due to increasing fixed-to-mobile replacement and voice over IP (VoIP) alternatives.

Voice traffic on fixed and mobile networks at EU level (2005-2013) (Source: Cocom)



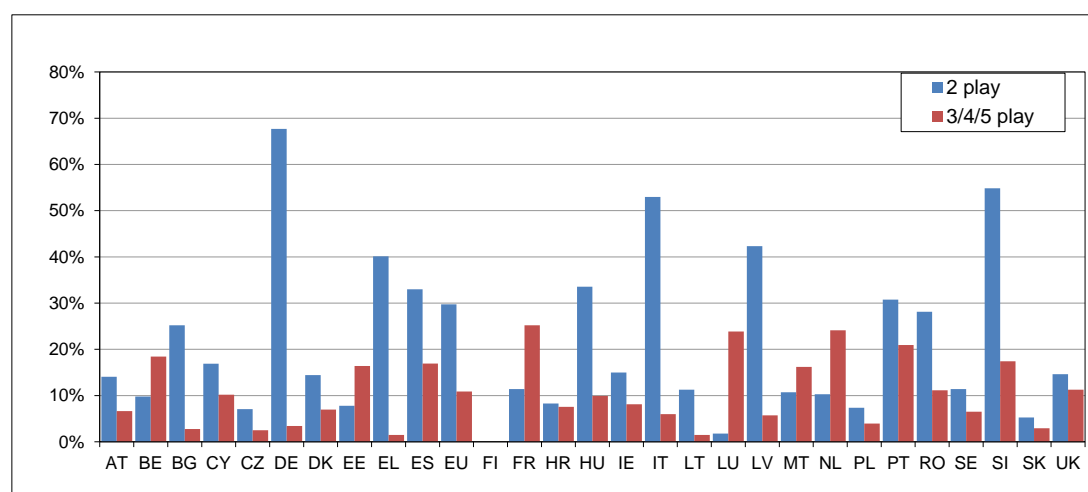
In order to achieve cost savings and efficiencies, mobile network operators (MNOs) are entering into network sharing agreements in response to the increasing need to invest in new networks, in particular with the deployment of LTE. Passive sharing is very widespread in the EU. In some instances companies create joint ventures or outsource assets to tower companies¹⁸ that own and manage passive infrastructure and sites.

¹⁸ Such as in Italy.

Currently MNOs in 12 Member States¹⁹ are involved in various types of active sharing agreements. Regulatory and competition authorities have begun to scrutinise some of these agreements in order to minimise the risk that some types of sharing agreements may lead to a decrease in competition. In addition to network sharing, the trend towards industry consolidation is also continuing, as can be seen from the various transactions (completed or announced) during the reporting period²⁰, some of them still subject to regulatory clearance by the competition authorities.

Bundled offers became increasingly popular throughout the EU, though at very different paces. In the reporting period, the average penetration of bundled offers (subscriptions/population) in the EU has increased by five percentage points from 36 % to 41 % (July 2014). The most common bundle combination was fixed voice with broadband services, although in some countries a significant number of end-users tended to bundle more services together, including mobile and/or internet protocol TV (IPTV).

Double play and triple-play penetration (subscriptions/population), July 2014 (Source: Cocom)



2. MARKET REGULATION

2.1. Market analysis

2014 saw the third revision of the Commission’s Recommendation on relevant product and service markets²¹, continuing the deregulatory trend already witnessed in the

¹⁹ In Cyprus, the Czech Republic, Denmark, Finland, France, Greece, Hungary, Poland, Romania, Spain, Sweden and the United Kingdom.

²⁰ E.g. France (Numericable/SFR), Germany (Telefonica Deutschland/E-Plus), Greece (Vodafone/HoL), Ireland (Hutchison Ireland/O2 Ireland), Poland (T-Mobile Polska/GTS Poland), Portugal (ZON/Optimus, Altice/PT Portugal), Slovenia (Telemach/Tušmobil), Spain (Vodafone/ONO, Orange/Jazztel), United Kingdom (BT/EE, Three/O2).

²¹ Commission Recommendation 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 communications networks and services, 9.10.2014, C(2014) 7174 final.

previous overhaul of the Recommendation in 2007. The number of markets that warrant ex-ante regulation has been reduced to four, taking into account in particular progress in competition and technological developments.

Considerable progress has been made in the past year concerning the implementation of the Commission's 2009 Termination Rates Recommendation²², with the vast majority of national regulatory authorities (NRAs) now applying a costing methodology in line with the Commission's recommended approach regarding both fixed and mobile termination rates. This has led to significantly lower termination rates across the EU²³. However, a small number of deviations from the recommended approach remain²⁴, notably the constraints purportedly imposed on the Finnish NRA by national legislation and the continued application of LRIC+ by the German NRA in spite of an increasing number of Article 7a Recommendations by the Commission and guidance from BEREC. The Commission services are following up on these issues with the respective Member States and in the context of an ongoing preliminary Court of Justice ruling in response to a request by a Dutch Court²⁵. At the same time, given the persistent refusal by the German NRA to apply a pure LRIC methodology in this regard, the Commission services are now also exploring what further steps could be taken to ensure the consistency and proper functioning of the internal market in telecommunications.

On the regulation of broadband markets, the Commission is faced with a mixed picture. Although not all NRAs as yet follow the recommended approach when regulating markets 3a and 3b²⁶, we can nevertheless detect a trend whereby an increasing number of NRAs have recently adopted regulatory approaches for the broadband markets (in particular NGA/fibre regulation) that are broadly in line with the Commission's 2013 Recommendation on consistent non-discrimination obligations and costing methodologies²⁷. For the wholesale central access markets, we have witnessed an increasing deregulatory trend, with more and more NRAs either lifting (or proposing to lift) regulation at regional level or, in some instances, even nationally²⁸. The Commission was ready to accept such proposals where the removal of regulation was justified by the competitive conditions in the relevant Member States.

Concerning new technical developments with an impact on the regulatory landscape, an increasing number of NRAs have been confronted with the question of whether to allow the introduction of VDSL-Vectoring technology, given the potential impact this has on

²² Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, 7.5.2009, 2009/396/EC.

²³ E.g. MTRs have seen a decrease from an EU average of over 4€ct/min in January 2012 to a current average of just below 1€ct/min in the Member States in compliance with the recommended approach.

²⁴ For MTRs, only the Netherlands, Finland and Germany currently deviate from the Recommendation.

²⁵ KPN et al (C-28/15).

²⁶ i.e. wholesale local access provided at a fixed location (3a) and wholesale central access provided at a fixed location for mass-market products (3b).

²⁷ Examples of approaches closely in line with the 2013 Recommendation have been adopted in, for example, Luxembourg, Sweden and the United Kingdom, although the NRAs in those countries tend to interpret the economic replicability test more strictly than envisaged by the Commission.

²⁸ See the recent decision by the Swedish NRA to deregulate the market for wholesale central access on a nationwide basis.

the ability to provide unbundled network access. The Commission has not objected to the removal of a sub-loop unbundling (SLU) obligation in case of VDSL-Vectoring, where the transition process is transparent and where the operator using the vectoring technology is obliged to offer as a substitute an appropriate virtual access product. On this point, the Commission called upon NRAs to ensure that any future virtual access offer serving as a substitute for sub-loop unbundling should display features which are as close as possible to a physical unbundling product, i.e. it should, in principle, be local, service-agnostic, uncontended in practice and allow for sufficient control of the access connection and the customer premises equipment.

Legal developments include a decision by the Court of Justice²⁹ confirming that an NRA has the power to impose on an operator with significant market power an obligation to install, at the request of competing operators, a drop cable not exceeding 30 metres in length connecting the distribution frame of an access network to the network termination point at the end-user's premises, as long as that obligation is based on the nature of the problem identified, proportionate and justified in the light of the objectives set out in Article 8(1) of the Framework Directive. Compliance of NRAs with their obligation to review relevant markets at three-year intervals remains an issue in a large number of Member States. Following contact with BEREC and the individual NRAs, the Commission services are closely monitoring action taken at national level to prevent persistent delays from leading to inappropriate over- or under-regulation. For example, in October 2014 the Commission decided to refer Luxembourg to the Court of Justice for failure to comply with the Framework Directive. After the Luxembourgish NRA provided notification of the markets for which a second round of analysis was still missing, the Commission decided in March 2015 to withdraw the case.

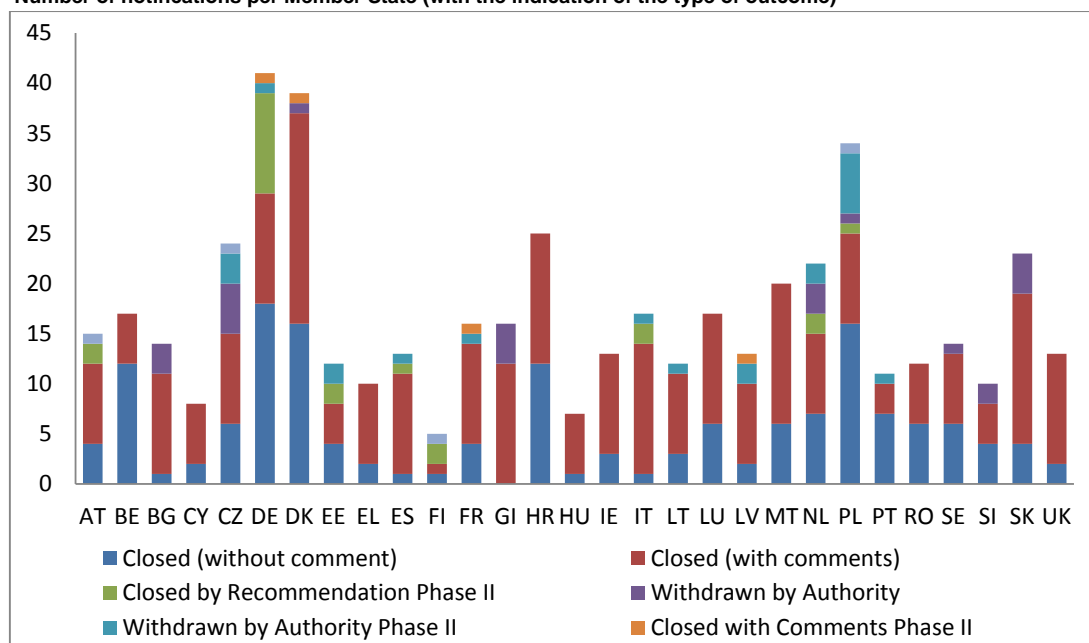
A more general assessment of market regulation across the EU shows that the Commission has issued four veto decisions since the end of the transposition phase following the last review of the regulatory framework³⁰. During the same period, NRAs withdrew 24 notifications during Phase I and 21 notifications during Phase II of the procedure. The cases which led to the opening of detailed investigation (Phase II) can be broadly classified into three separate categories: (i) fixed and mobile call termination markets; (ii) broadband access, i.e. local and central access markets; and (iii) notifications of other or atypical markets, i.e. those outside the Relevant Markets Recommendation (such as SMS termination, IP transit and peering). In all cases, the Phase II investigations aimed at ensuring regulatory consistency in light of EU law. The table below contains an overview of the number of notifications per Member State, with the indication of the type of outcome³¹.

²⁹ C-556/12.

³⁰ i.e. between 26 May 2011 and 29 April 2015.

³¹ The following outcomes are possible: In Phase I, a withdrawal by the NRA, no comments by the Commission, a comments letter, or the opening of a Phase II investigation, which in turn can conclude by a withdrawal of the NRA, a decision by the Commission to lift its reservations, a veto under Art.7, and a Phase II Recommendation under Art. 7a.

Number of notifications per Member State (with the indication of the type of outcome)



2.2. Access and interconnection

The migration to an all-IP based network architecture is gaining momentum. Two incumbents have already completed the migration³² while in at least 11 other Member States³³, the incumbent has already announced plans to migrate.

In addition to the regulation of IP-based interconnection for voice services, a number of NRAs³⁴ have announced or adopted measures to prepare and manage the transition towards all-IP networks, either by setting a deadline for the full transition of all operators or by addressing technical issues (e.g. location of the point of interconnection) and pricing features.

With only a few remaining exceptions, all operators offer IP interconnection products. As a consequence of the migration to all-IP, offers for the provision of IP-based interconnection voice services are under regulatory scrutiny in an increasing number of Member States. Reporting obligations for IP-based interconnection for voice services agreements are in place in 10 Member States³⁵, while regulated reference offers for IP-based interconnection for voice services have been set up in 13 Member States³⁶.

³² In Austria and Slovakia.

³³ Belgium, Denmark, France, Germany, Hungary, Italy, Luxembourg, the Netherlands, Poland, Romania and the United Kingdom.

³⁴ Bulgaria, Croatia, Cyprus, Germany, Italy, Portugal and Slovenia.

³⁵ Belgium, Bulgaria, Croatia, Cyprus, Germany, Spain, France, Greece, Latvia and Romania.

³⁶ Austria, Bulgaria, Croatia, Cyprus, Denmark, Germany, France, Hungary, Greece, Italy, Slovenia, Spain and Sweden.

3. BROADBAND PLANS AND FINANCING

By May 2015, a large majority of Member States had adopted national broadband plans: these were either integrated within broader digital strategy documents or were standalone documents specifically dedicated to broadband deployment. Their objectives are either in line with or more ambitious than the speed targets set up in the DAE, although with varying time scales, ranging from 2015 to 2022. The Member States that have not yet adopted their national broadband plans are in the process of finalising them³⁷. Some Member States are doing this in order to fulfil the ex ante conditionality criteria under the ESIFs (European Structural and Investment Funds) regulations with regard to the adoption of next generation networks (NGN) plans.

Although most of the financing should come from the private sector, funding for the relevant national projects for network roll-out also comes both from national public funds and from the EU, via the European Regional Development Fund and the European Agricultural Fund for Rural Development. 22 Member States have allocated ERDF and/or EAFRD funding to broadband deployment for the period 2014-2020, totalling approximately EUR 6 billion. However there are significant differences between Member States in terms of net amounts and percentages of ERDF and/or EAFRD funds earmarked for broadband deployment. Overall, despite significant commitment and ambitious plans to catch up over NGA deployment, for example in France or Italy, the level of public financing in EU Member States has not always matched the amount of public investment required. Innovative funding solutions will continue to be needed in the coming years to reach the national and EU targets, particularly in order to provide access to 30 Mbps connections for all Europeans by 2020. For example, France has provided the first case of the use of project bonds in the telecoms sector, with the company Axione refinancing some public sector projects with long-term needs. The CEF (Connecting Europe Facility) and the EFSI (European Fund for Strategic Investment) will provide further opportunities to use financial instruments (e.g. guarantees, loans, equity) to underpin innovative business models designed to enhance the leverage effect of public financing in supporting private investments. The use of financial instruments for broadband deployment is also encouraged under the European Structural and Investment Funds.

4. INSTITUTIONAL ISSUES

4.1. The National Regulatory Authority

There were significant improvements in several Member States in 2014 with regard to the independence of the national regulatory authority. Following action or enquiries by the Commission, some forms of ministerial or legislative intervention in NRA activity have been eliminated³⁸ and safeguards for the independence of the regulator against dismissal have been reinforced³⁹.

³⁷ Such as Croatia, Cyprus, Greece and Slovenia.

³⁸ In Belgium, the Netherlands and in France.

³⁹ In Latvia, Sweden.

With regard to powers and resources, some Member States changed the scope and allocation of the tasks of their NRAs in 2014⁴⁰ and several Member States reduced their NRAs' budgets⁴¹.

The above developments confirm two recurring trends regarding the independence and regulatory capacity of NRAs. The first concerns the restructuring or modification of the competences of NRAs, which has happened in no less than 11 Member States in the past five years⁴², often motivated by attempts to make savings. The second is Member States' propensity to keep or regain control of regulatory issues by transferring competences back to ministries (Spain), trying to ensure a power of review (Belgium, the Netherlands), influencing the NRA's decisions by exercising control over its work programme (Belgium, Portugal, Slovenia) or giving it policy directions (Ireland).

In this context, the Court of Justice ruled that the *Teleklagenævnet*, the Danish body with the power to rule on appeals against decisions of the Danish NRA, cannot be regarded as a court or tribunal for the purposes of Article 267 TFEU as it lacks the requisite degree of independence⁴³.

4.2. Authorisation and licences

Transposition of the revised Authorisation Directive has resulted in overall harmonisation of the procedures applicable to national and cross-border operators. However, in recent years there has been some uncertainty over the application of the national notification requirements and their impact on the general authorisation systems in several Member States⁴⁴. The Commission services raised the matter with the Member States concerned, almost all of which subsequently removed certain establishment and guarantee requirements or abolished additional notification requirements⁴⁵. However, the Commission is currently pursuing infringement proceedings against the Czech Republic on this subject. The legal issues in this area were also clarified by a preliminary ruling of the European Court of Justice in 2014⁴⁶, according to which EU law precludes the imposition of national registration requirements in addition to those provided for in the Authorisation Directive, and must be interpreted as meaning that operators cannot be required to establish branches or a separate legal entity in the country where the services are provided.

How NRAs apply the provision in EU law on administrative charges has raised several implementation and interpretation issues over the past few years. Recent developments in the Court of Justice's case-law clarified the scope of administrative charges and linked

⁴⁰ Such as in Estonia and Slovakia.

⁴¹ In Bulgaria, Italy, Greece, France, as well as in Slovakia where the new postal competences were accompanied by a decrease in resources.

⁴² Belgium, Denmark, Estonia, Hungary, Ireland, Italy, the Netherlands, Slovenia, Slovakia, Spain, the United Kingdom.

⁴³ C-222/13. The case did not directly address the question of whether the *Teleklagenævnet* fulfils the independence requirements of the Framework Directive.

⁴⁴ The Czech Republic, Greece, Hungary, Romania, Slovakia, Portugal.

⁴⁵ Greece, Hungary, Romania, Slovakia, Portugal.

⁴⁶ *UPC DTH Sàrl v Nemzeti Média* (C-475/12).

them to the general authorisation procedure⁴⁷. In spite of these clarifications, there have been a number of cases where the Commission has had to look into how the systems of administrative charges are being implemented in various Member States⁴⁸. The Court also provided clarifications on the degree of discretion allowed to Member States in setting the appropriate amount of fees for rights of use as well as in deciding the intended use of the income derived from that fee⁴⁹.

In 2014 the Commission services also investigated a number of cases concerning the amendment or renewal of rights of use, in particular those linked to spectrum resources⁵⁰.

In addition to administrative charges and fees for rights of use, the electronic communications sector or the provision of electronic communications is often subject to additional financial burdens in the form of taxation and various fees in several Member States⁵¹. This trend continued in 2014⁵². Examples of such financial burdens include fees and taxes relating to infrastructure⁵³.

Radiation thresholds for electromagnetic fields (EMF) generated by the operation of electronic communications networks place further limits on the deployment of these networks. Following an exchange of views with the Commission services, the Brussels Capital Region in Belgium adopted higher thresholds in 2014, which were subsequently challenged in the courts. Other Member States with historically stricter standards⁵⁴ than those recommended by the Council⁵⁵ kept their levels unchanged. This leaves the majority of the Member States with EMF limits in line with the EU-wide recommendations.

At the end of 2014, the two mobile satellite services (MSS) operators selected by the Commission in 2009 are authorised in 23 Member States. In three Member States only one is authorised, while in two Member States none are authorised. Finally, six Member States⁵⁶ have taken enforcement actions, coordinated pursuant to Decision 2011/667/EU, in order to ensure compliance with the conditions applicable to the provision of MSS.

⁴⁷ Telefónica de España SA (C-284/10) and Vodafone Omnitel (C-228-232/12 and C-254-258/12), Commission v. France (C-485/11), Vodafone Malta (C-71/12).

⁴⁸ Latvia, Italy, Lithuania.

⁴⁹ Telefonica Moviles Espana SA (C-85/10), Joined Cases Provincie Antwerpen v Belgacom NV van publiek recht (C-256/13) and Mobistar NV (C-264/13).

⁵⁰ France, with regard to the power to modify the rights of use granted to TV channels; Croatia, with regard to increase of spectrum fees; Poland, with regard to extension of rights of use in the 900 and 1800MHz band without public consultation. Following the launch of infringement proceedings against Hungary in 2014 concerning the award of temporary licenses to radio stations, Hungary has addressed the Commission's concerns.

⁵¹ Italy, Hungary, Malta, France, Spain, Slovakia.

⁵² Portugal, Romania and, due to new regional provisions, Spain.

⁵³ Romania, Belgium.

⁵⁴ Croatia, Greece, Italy, Lithuania, Poland, Slovenia.

⁵⁵ OJ L 199, 30.7.1999, p. 59.

⁵⁶ Finland, Germany, Spain, Sweden in 2014, United Kingdom and France in the first quarter of 2015.

On the assignment to non-ECN/S providers⁵⁷ of rights of use for numbers, there are some disparities of approach amongst Member States. Some clarified that numbering resources are assigned to electronic communications providers only⁵⁸. Other Member States allow other service providers to access special numbers (such as short numbers)⁵⁹ or grant access to numbers for special use (where these resources are used for particular socially relevant services)⁶⁰, while other Member States grant non-ECN/S providers access to a range of mobile numbers⁶¹.

5. SPECTRUM MANAGEMENT

The ‘digital dividend,’ i.e. the 800 MHz band, has been assigned so far by 24 Member States, nine of which were granted an exemption from the deadline set by Article 6(4) of the Radio Spectrum Policy Programme. For varying reasons, four Member States are late⁶². The Commission services are closely monitoring developments in Poland, where the derogation deadline has been missed by a significant margin and the auction is ongoing.

In several Member States the 900 MHz, 1800 MHz and 2.1 GHz bands have been or are being refarmed to allow operators the parallel use of multiple transmission technologies (GSM, UMTS, LTE)⁶³. However, some Member States reported a lack of market interest in higher bands, notably the 3.4-3.8 GHz band⁶⁴. Several public consultations have been launched to reassess market demand⁶⁵ after Commission Implementing Decision 2014/276/EU of 2 May 2014 included new harmonised technical standards to apply in this frequency band. Some Member States have also started the authorisation process to assign the 1.5 GHz band (1452-1492 MHz), following the harmonisation of this frequency band by Commission Implementing Decision (EU) 2015/750⁶⁶. However, the amount of spectrum allocated by the Member States is still far from the objectives set out in the RSPP.

⁵⁷ i.e. providers that do not fulfil the definition of electronic communications networks (ECN) and services (ECS) under Article 2 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive).

⁵⁸ Such as Luxembourg, Italy, Slovakia.

⁵⁹ Such as Lithuania, Sweden.

⁶⁰ Such as Belgium.

⁶¹ Such as the United Kingdom.

⁶² Bulgaria, due to use by the Ministry of Defence pursuant to Article 1(3) of Decision No 243/2012/EU; Cyprus, due to interference from the territory not under its control (although public consultation on the assignment of the band is expected); Malta, which is implementing an international coordination process with several neighbouring countries; Poland, where the Commission is closely monitoring the developments following the expiry of the deadline.

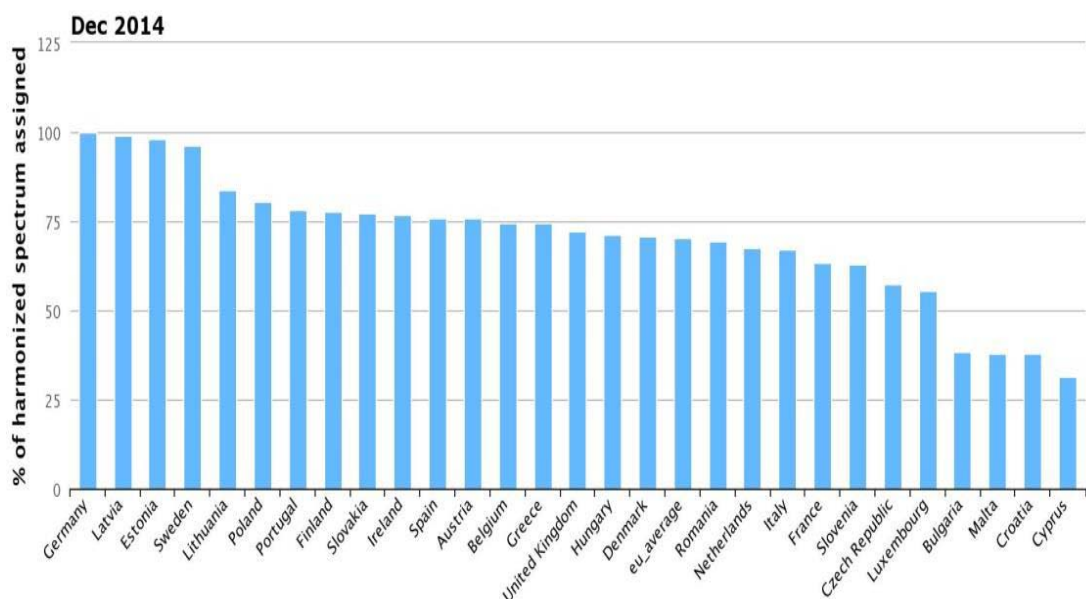
⁶³ Belgium, Croatia, Italy, Hungary, the United Kingdom.

⁶⁴ Concerning 21 Member States.

⁶⁵ In Belgium, Cyprus, the Czech Republic, Ireland, Italy, Hungary and Latvia.

⁶⁶ In Italy, AGCOM has already launched a public consultation on the assignment rules; in France, these frequencies are likely to be auctioned together with the 700 MHz band later this year.

Spectrum assigned for wireless broadband in EU harmonised bands, December 2014
 (Source: Commission SWD(2015)100 – Digital Single Market Strategy for Europe, p. 40)



Multiband auctions are increasingly being used to grant spectrum usage rights for mobile communications services. Between 2010 and 2014, such auctions usually combined the 800 MHz and 2.6 GHz (paired and unpaired) bands⁶⁷, often together with (parts of) the 900 MHz and 1800 MHz bands⁶⁸. Some of the authorisation procedures currently in preparation are likely to see the auctioning of several bands together. This is the case in Germany, France, Ireland and Slovenia.

Currently used for broadcasting in Europe, the 700 MHz band (694-790 MHz) will also be allocated, on a co-primary basis, to international mobile telecommunications (IMT) services immediately after the World Radiocommunication Conference 2015 (WRC-15), where the applicable technical and regulatory conditions will be finalised. The Commission will propose measures to harmonise the technical conditions for wireless broadband use of the 694-790 MHz band at EU level. Many Member States are moving in this direction, although at very different paces⁶⁹. Some Member States have reported difficulties in view of the current duration of licences assigned to broadcasters⁷⁰ or due to cross-border coordination issues with third countries⁷¹, but the Radio Spectrum Policy Group (RSPG) was able to propose ‘making the band available for effective use by ECS by the end of 2020’, with the possibility for some Member States to delay this until 2022 for ‘duly justified reasons’⁷².

⁶⁷ Greece, Luxembourg, the Netherlands and the United Kingdom.

⁶⁸ The Czech Republic, Germany (where the 2.1 GHz band was also included) Greece, Hungary, Italy, Portugal, Romania, Slovenia, Slovakia and Spain.

⁶⁹ France, Estonia, Finland, Sweden, Germany, the Netherlands, Belgium, the Czech Republic, Ireland, Lithuania, Luxembourg, Poland, the United Kingdom, with timescales for assignment ranging from 2015 to 2022.

⁷⁰ Austria, Bulgaria, Cyprus, Croatia, Greece, Italy and Slovakia.

⁷¹ e.g. Latvia, Lithuania and Malta.

⁷² See the ‘[RSPG Opinion on a long-term strategy on the future use of the UHF band \(470-790 MHz\) in the European Union](#)’, of 19 February 2015, where the RSPG also recommends that Member States ‘start,

6. RIGHTS OF WAY AND ACCESS TO PASSIVE INFRASTRUCTURE

Complex, cumbersome and fragmented procedures on this issue were reported in Bulgaria, the Czech Republic and Luxembourg, although measures to address inefficiencies are in the pipeline. In Ireland and the United Kingdom, providers face burdensome negotiations with private landlords, while in Poland, the time it takes to grant permits is being drawn out by an increasing number of court cases.

It usually takes more time to grant a permit for the deployment of mobile networks than for fixed ones, although standardised small antennae are sometimes exempt from the permit granting procedure⁷³. Tacit approval is applied in some Member States countries⁷⁴ mostly with regard to permits for the deployment of fixed networks and, in Portugal and Romania, for rights of way.

Germany, Portugal and Slovenia have well established infrastructure mapping tools, while new mapping projects are being carried out in several Member States⁷⁵, also with a view to implementing some of the tasks intended for the single information points under Directive 2014/61/EU⁷⁶. More generally, Member States are preparing for the transposition of this Directive: public consultations and hearings have been held in Bulgaria, Denmark, France, Slovenia and Sweden, while Italy has already transposed some of the provisions.

NGA wiring is mandatory for new buildings in some Member States⁷⁷. In Germany, buildings may be upgraded with NGA infrastructure without the agreement of the owner, if this does not permanently affect the usability of the premises.

Granting of access to ducts and aerial cables has been quite successful in France (with a significant increase in use of the incumbent's ducts compared with the previous year), in Spain and in Portugal, which was one of the first Member States to impose cross-sector obligations. In Ireland, a new act enabled the monopoly electricity network operator to make its network available to any ECN provider. Overall, symmetric access to passive infrastructures, or some parts of it, is planned in several Member States⁷⁸. Secondary legislation (binding in Greece and non-binding in Belgium) has been issued with regard to active and/or passive infrastructure sharing.

with the support of the Commission if necessary, bilateral negotiations with those countries [non-EU neighbouring countries] as early as possible to reach the necessary cross-border coordination agreements⁷.

⁷³ Such as in Italy.

⁷⁴ Such as Cyprus, Italy and Greece.

⁷⁵ Such as in Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Portugal and Sweden.

⁷⁶ Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks, OJ L 155, 23.5.2014, p. 1.

⁷⁷ Austria, Croatia, France, Greece, Portugal, Romania.

⁷⁸ Such as Austria, Croatia, Cyprus, France, Italy, Greece, Hungary, Latvia, Lithuania, Poland, Portugal, Slovenia, Spain, Sweden, the Netherlands.

7. CONSUMER ISSUES

7.1. The European emergency number 112

As reported in the EU Communications Committee (Cocom)⁷⁹, access to 112 for disabled end-users did not improve significantly in the reporting period. 22 Member States reported the implementation of alternative access to 112, up from last year's 21. The take-up of SMS access to 112 remained the same (18 Member States) while three Member States reported that deployment of these kinds of alternative ways of contacting emergency services was ongoing. Member States were encouraged to step up their efforts to provide more accurate caller location as the data gathered by Cocom showed a lack of improvement on this point.⁸⁰

7.2. Number portability

The reported regulatory time at national level is still high in certain Member States⁸¹. With regard to the porting of fixed numbers, the regulatory time is often higher than for mobile⁸².

In relation to wholesale charges for fixed and mobile there are differences in national implementation across the EU. With regard to maximum mobile wholesale prices for porting numbers, some Member States have no charges, other still maintain such charges and in some other Member States they remain particularly high⁸³. Similarly, many Member States have no or very low wholesale charges for the portability of fixed lines, whereas in some others they can be particularly high⁸⁴.

In the context of the review of national portability rules, simplification of procedures and/or in implementing existing number portability rules, some Member States have also adopted measures with regard to the portability of bundled offers of services in view of their growing importance for consumers in the market.

7.3. Contractual obligations

The Universal Service Directive provides that contracts between providers and consumers should not mandate an initial commitment period exceeding 24 months, and ensures that providers offer users the possibility to subscribe to a contract with a maximum duration of 12 months. Some Member States have shorter commitment periods (Belgium, Denmark) or provide the possibility for consumers to terminate the contract at any time subject to prior notice requirements (Malta, Spain). In the Netherlands, national

⁷⁹ <https://ec.europa.eu/digital-agenda/en/news/implementation-european-emergency-number-112-results-eight-data-gathering-round>

⁸⁰ See also the CEPT Electronic Communications Committee (ECC) Report 225 of 22 October 2014: <http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCREP225.PDF>.

⁸¹ 5 days in The Netherlands and Finland.

⁸² Greece (10 days), Italy (8 days) and Cyprus (7 days) having the longest process, in all cases substantially higher than for mobile.

⁸³ Up to 14€ in Latvia and 9€ in Bulgaria, Cyprus and Finland

⁸⁴ Up to 40€ in Finland, 28€ in United Kingdom and 22€ in Austria.

law allows consumers to terminate the contract at any time with a one-month notice period after the contract period has been tacitly extended.

Some Member States have adopted or further clarified detailed rules on consumer protection safeguards in the event of unilateral changes to contract conditions⁸⁵. In some cases, the Commission is looking into this matter. Some Member States, like Portugal, are considering new implementation measures on the transparency of contractual information, with the aim of simplifying information for end-users on contracts and services.

7.4. Other consumer issues

There were developments on transparency, the publication of information on prices and services by providers and the provision of comparable information, as provided for in Article 21 of the Universal Service Directive.

In 2014, some NRAs adopted new transparency rules regarding the publication of information on services and prices by providers (Belgium, Bulgaria; Germany is also considering this). Other NRAs operate an online database on prices and services in cooperation with providers (Hungary). A number of NRAs operate tariffs observatories and interactive guides (e.g. Greece and Romania) or have improved their comparison and simulation tool (e.g. Portugal). Finally, some NRAs have accreditation schemes for tariff calculators available on the market⁸⁶.

In addition, some Member States have implemented measures on the monitoring of expenditure and cost control by consumers (e.g. Austria, the Netherlands) or have adopted measures to ensure equivalence in access and choice of electronic communications services for disabled end-users (Ireland and Slovakia).

8. UNIVERSAL SERVICE

Universal service obligations continue to be reviewed or are subject to public consultation in several Member States in the light of changing market developments⁸⁷. Many Member States do not have universal service obligations in place for services deemed to be satisfactorily provided by the market or available through comparable means. This trend is most visible for comprehensive telephone directories, public payphones and comprehensive directory enquiry services. In 18 Member States⁸⁸ there is no obligation to provide a comprehensive directory enquiry service, while in 14 Member States⁸⁹ there is no obligation to provide a comprehensive telephone directory. There are

⁸⁵ Austria, Cyprus, the Czech Republic, Sweden and the United Kingdom.

⁸⁶ e.g. the Czech Republic, Italy, the United Kingdom.

⁸⁷ Cyprus, France, the Netherlands, Italy, Lithuania and Malta.

⁸⁸ Austria, Belgium, Cyprus, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Italy, Ireland, Luxembourg, Poland, Romania, Slovakia, Spain, Sweden and the Netherlands.

⁸⁹ Belgium, the Czech Republic, Estonia, Finland, France, Germany, Italy, Lithuania, Luxembourg, Poland, Romania, Slovakia, Sweden and the Netherlands.

no universal service obligations on payphones in 12 Member States⁹⁰. Access at a fixed location is provided by the market outside the universal service obligations in eight Member States⁹¹. Special measures for disabled end-users are offered by universal service providers in 13 Member States⁹².

Several Member States have already defined a connection to a network permitting internet access at broadband speeds within the scope of universal service at national level⁹³. Other Member States have started to look at extending the scope of the universal service obligations to include broadband provision of 1 Mbps or higher⁹⁴.

In 2014, new universal service providers were designated in Hungary, Portugal (following a second Court of Justice judgment imposing financial penalties⁹⁵) and Slovenia. In Greece, the NRA initiated a call for expressions of interest to designate a universal service provider in 2014. Overall, where designation procedures have been carried out, most Member States have selected only one universal service provider (12 countries) or two (five countries). Finland has the largest number of designated universal providers, with 10.

As regards the financing of universal service provision, requests for compensation have been received to date in 17 Member States⁹⁶. However, compensation has so far been paid out in only five of those countries⁹⁷ and approval of costing methodologies may take some time⁹⁸. Spain's new 2014 Telecommunications Law also defines a revenue threshold to determine which operators should contribute to the financing of universal service. Malta is currently carrying out a consultation to determine how universal service should be financed. As for Portugal's compensation fund to finance the net costs of universal service obligations, the Commission has raised concerns regarding its implementation and compatibility with the relevant requirements under Directive 2002/22/EC.

In Romania, the NRA has imposed an obligation on operators to create service packages for disabled end-users, comprising recommended bundles and tariffs. In Finland, a government decree ordered that hearing-impaired users and users with speech problems must have access to an SMS service for emergency services via the universal service

⁹⁰ Belgium, Cyprus, Denmark, Estonia, Finland, Germany, Latvia, Luxembourg, Poland, Romania, Slovakia and the Netherlands.

⁹¹ The Czech Republic, Denmark, Estonia, Luxembourg, Poland, Romania, Slovakia, Sweden.

⁹² Belgium, Bulgaria, the Czech Republic, Finland, France, Greece, Latvia, Malta, Portugal, Slovakia, Slovenia, Spain and the United Kingdom.

⁹³ Belgium, Croatia, Finland, Spain and Sweden (1Mbps), Malta (2Mbps), Latvia (disabled end-users only).

⁹⁴ Latvia, Slovenia and the United Kingdom.

⁹⁵ C-76/13.

⁹⁶ Belgium, Croatia, Cyprus, the Czech Republic, Denmark, France, Greece, Hungary, Ireland, Italy, Latvia, Malta, Poland, Portugal, Slovakia, Spain and the United Kingdom.

⁹⁷ The Czech Republic, Denmark, France, Latvia and Spain. In Cyprus, the universal service provider's request to calculate the unfair burden of providing universal service obligations in 2012 was rejected.

⁹⁸ In 2014, costs for universal service provision were approved in Portugal for 2007-2011 and in Spain for 2011, whereas a new methodology is being developed for 2012. In Italy, judicial annulments slowed down the approval process.

obligations. Designated universal service providers must also provide visually-impaired users with accessible invoices.

9. NET NEUTRALITY

9.1. Legislative situation

In 2013, the European Commission made a proposal to ensure open internet across the European Union⁹⁹. In the meantime, Member States continue to follow differing approaches on net neutrality, ranging from self-regulation to binding legislation.

Denmark, Hungary, Sweden and the United Kingdom rely on self-regulatory initiatives to ensure net neutrality. Austria, the Czech Republic, France and the United Kingdom have issued guidance on net neutrality. In Romania, the NRA has completed a public consultation on transparency obligations, which includes obligations on net neutrality. A decision based on this consultation is expected to come into force in the first half of 2015. Legally binding measures are in place in the Netherlands and Slovenia, while Finland has adopted an 'Information Society Code' which will come into force on 1 July 2015. The code prohibits internet service providers from restricting a user's ability to use an internet service, except in a limited number of cases.

In 2014, the NRAs in Slovenia and the Netherlands started supervision procedures against mobile operators for alleged infringement of the net neutrality rules currently in place. The alleged infringements included provision of 'zero-rating services', i.e. commercial offers where data consumption for certain online applications or services is not charged or counted against the data allowance under the contract. The Dutch Ministry of Economic Affairs is planning to issue policy guidelines to clarify the national provisions, while some operators are pushing for clarity at EU level to reduce the impact of disparities in rules on net neutrality.

9.2. Quality of service

Quality of services measurement tools are available to end-users or are being implemented in several Member States¹⁰⁰. These are in addition to the NRAs' monitoring activities.

Finally, the BEREC work programme for 2015 includes the possibility for a joint investigation with the Commission into traffic management practices so as to provide updated data and identify evolving practices more accurately.

⁹⁹ Proposal for a Regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, COM(2013) 627.

¹⁰⁰ Such as in Austria, Croatia, Cyprus, Denmark, Italy, Latvia, Lithuania, Greece, Portugal, Romania, Spain, Sweden.