

REPORT ON MARKET
TRENDS AND
BENCHMARKING OF
REGULATORY
ACTIVITIES 2014

EURO-MEDITERRANEAN REGULATORS GROUP (EMERG)

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1. Introduction

1.1 Objectives

Since 2009 the Euro-Mediterranean Regulators' Group (EMERG) has undertaken an annual benchmark of its member National Regulatory Authorities (NRAs), and the results formed the basis for evaluate the level of approximation of the South-Mediterranean countries with respect to the European Framework for the electronic communications sector and to prepare the Group's activities.

During 2013, the European Commission decided not to extend its funding of the NATP-3 programme, and for 2014 the preparation and drafting of the Benchmarking Report was handed over to EMERG's Benchmarking Working Group, chaired by CNMC (Spain), as Vice-President of EMERG. The Working Group was integrated by experts from Jordan, Morocco, Lebanon, Portugal, Italy and Spain.

The 2014 Report collects information about some key performance indicators and trends of the telecom sector, in particular for the fixed, mobile and broadband markets. Moreover, the Benchmark provides an analysis about the extent to which countries in the MENA region¹ followed the model of regulation developed within the European Union.

1.2 Process

Two extensive questionnaires were circulated to the National Regulatory Authorities (NRAs) at the beginning of August 2014. Both surveys were based on the existing literature as well as on previous research on the topics conducted by the EMERG, BEREC and the European Commission (EC).

The NRAs were asked several additional questions between September and January in order to clarify and/or supplement the information provided by the NRAs.

A total number of 19 EMERG members answered to the questionnaire: Portugal, Spain, France, Italy, Egypt, Malta, Croatia, Switzerland, Germany, Austria, Greece, Cyprus, Turkey, Palestine, Lebanon, Jordan, Israel, Tunisia and Morocco. By the time being, Algeria and Syria did not reply to the questionnaire.

It should be noted that a number of items requested in the questionnaire were considered confidential or not available by some NRAs. Some tables and plots have been elaborated with other sources of data, especially from the "Measuring the Information Society Report 2014", (ITU), "Fact-Finding Report on NRAs' Regulatory Capacity", (BEREC), several

¹ MENA countries: Middle Eastern and North African countries.

reports from EMERG, and statistical sources from Eurostat and World Bank. Finally, the data and information included in the Benchmark Report refer as to 31st December, 2013.

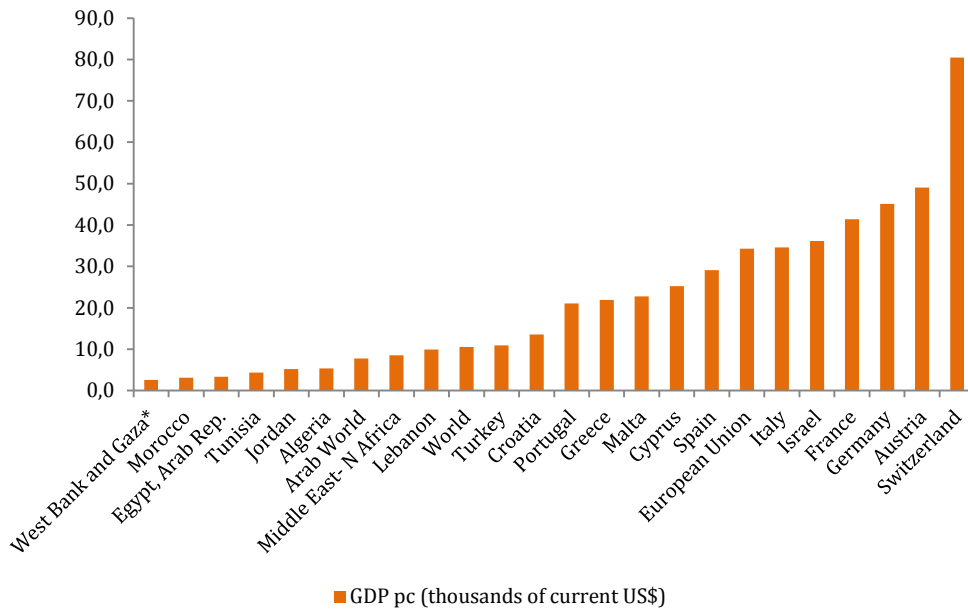
2. Trends in the telecommunication markets in the EMERG countries

There is a number of common market trends in the set of countries included in EMERG. In relation to fixed networks' services, for fixed telephony showed generalized reductions in the stock of active lines, on an opposite behavior, broadband services resulted in a notable rate of growth in terms of lines, an average of 6.2%. Fixed telephony lines, which reached an average penetration of 32.2 lines/100 inhabitants, are being replaced by mobile lines across all the countries of the region. Fixed broadband lines showed an average penetration rate of 20.1, which in comparison with fixed lines penetration, shows that there is room for growth yet.

Services based on mobile networks grew at a healthy rate. Mobile telephony lines grew at an average annual rate of 2.7%, reaching a penetration figure (measured as number of mobile lines per 100 inhabitants) of 120.2. In several countries, in any case, a slight absolute reduction in the stock of mobile lines was recorded, as in Cyprus, Spain, Croatia, Tunisia and Greece. Mobile broadband is the most successful service in recent years all across the world and as well in the EMERG countries. The region as a whole recorded a 25.4% growth annual rate in the number of subscriptions, reaching an average penetration high of 40.4 subscriptions per 100 inhabitants. It is notable the growing distance between penetration of fixed broadband (20.1) and mobile broadband (reaching 40) in all countries considered, even more intense in the less developed ones.

Comparing performance indicators across the EMERG countries is a difficult exercise. The very wide differences in per capita income, living conditions and regulatory frameworks make comparisons an exercise which must be taken with caution. As will be shown during this report, the significant differences in GDP per capita across the countries considered do not translate directly in the same magnitude to coverage and penetration of certain telecommunications services.

Chart 1. GDP per capita in EMERG countries
(thousands of current US\$)



Source: World Bank

In the following sections basic indicators of usage, penetration and coverage are presented for the set of countries for which data is available, -either obtained directly from the NRAs or from other sources-, notably ITU. The objective is to extract from these set of data the main trends occurring in the market place.

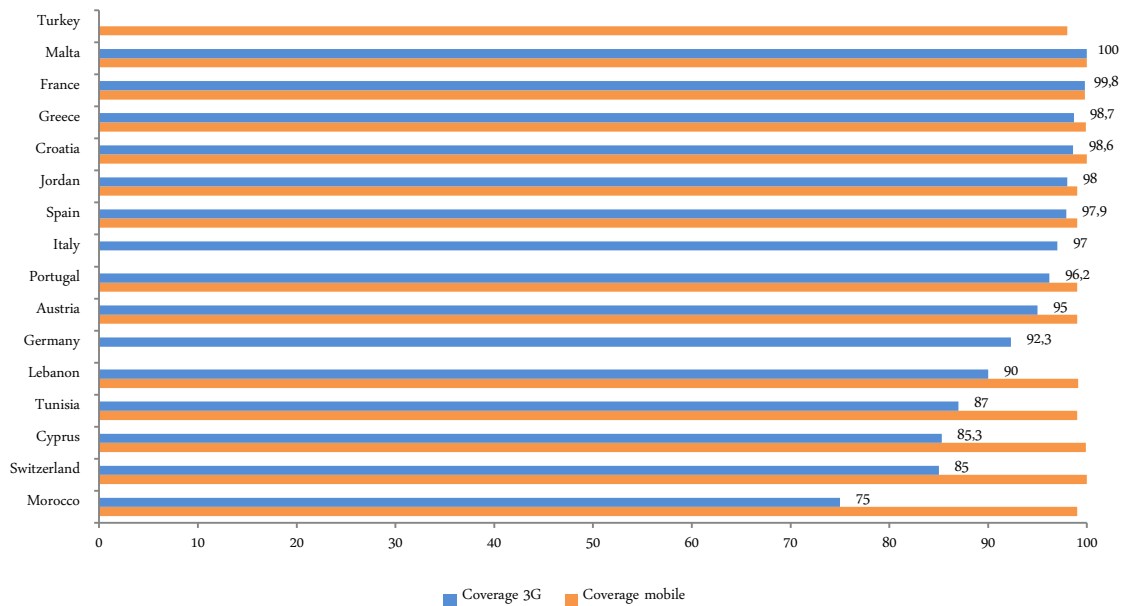
2.1.1 Mobile services coverage and penetration

One relevant development in telecommunications network around the world is the strong extension of mobile networks in the last two decades. The deployment of mobile networks implies costs much lower than the ones implied for fixed networks and one evidence since the emergence of mobile telephony is the fact that in developing and emerging markets, coverage of mobile networks soon surpassed significantly the coverage registered for fixed networks.

As it shall be depicted in this section, large differences in terms of penetration and use of final services do exist among more developed and less developed countries, but in terms of coverage of mobile networks these differences are very much reduced. In fact, if coverage is measured in terms of population covered by at least one mobile network- whatever the network standard used: 2G, 3G, LTE/4G-, the coverage in all EMERG

countries is practically the same. Coverage with any mobile network is 99.3% of population on average in the whole set of countries for which data was available (15), with very small variations across them. The lowest coverage resulted in Turkey with 98% of population already covered by at least one technology.

Chart 2. Coverage over population of mobile networks
(% of population)



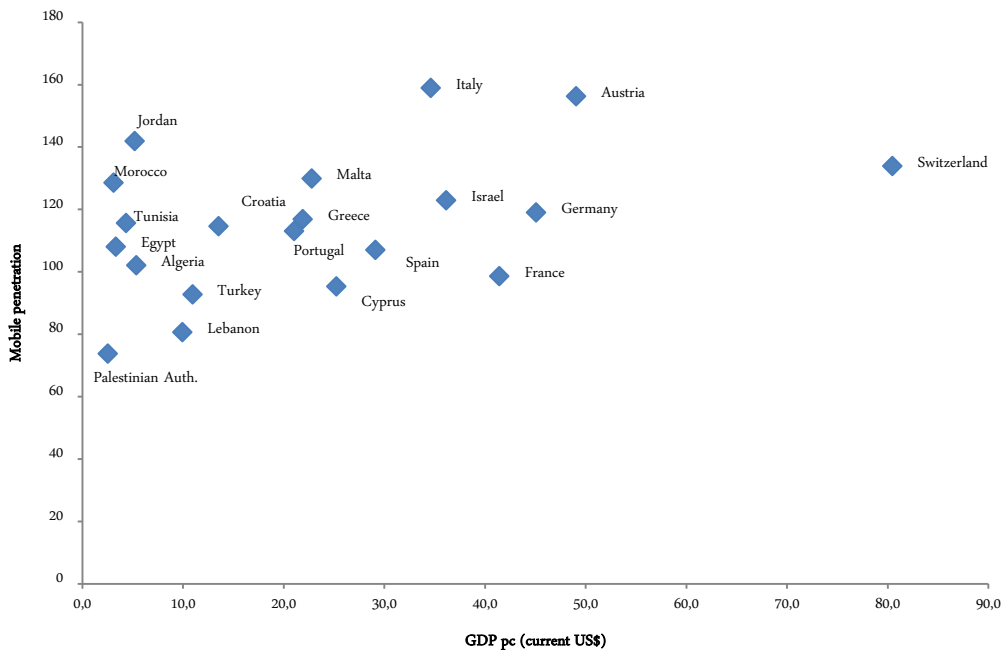
Source: EMERG

Higher differences are observed when looking only at the 3G/HSDPA coverage in the EMERG countries, though these are not as large as those based on other indicators. Morocco with 75% population coverage had the lowest figure, and Malta the highest. On average in any case, the coverage in all the countries taken as a whole was high: 92.8% of population had at least one 3G network at his disposal.

Mobile cellular subscriptions- which include voice and messaging services- kept rising during 2013 in most of EMERG countries. In some European countries the number of subscriptions in prepayment modality decreased in absolute terms, though the contract modality kept the positive trend even if at low rates of growth. Penetration is measured as a simple ratio: number of subscriptions over 100 inhabitants. This ratio does not capture real usage over individuals, i.e., proportion of individuals actually subscribing to a mobile service, due to the fact that business units and a relevant number of individuals hold several subscriptions simultaneously. Algeria, Jordan, Egypt, Morocco and Tunisia

surpassed the 100 penetration ratio, achieving rates similar to any other country in the EMERG as a whole.

Chart 3. Mobile cellular penetration & GDP pc ²
(lines/ 100 inhabitants & thousands of \$)



Source: EMERG and ITU

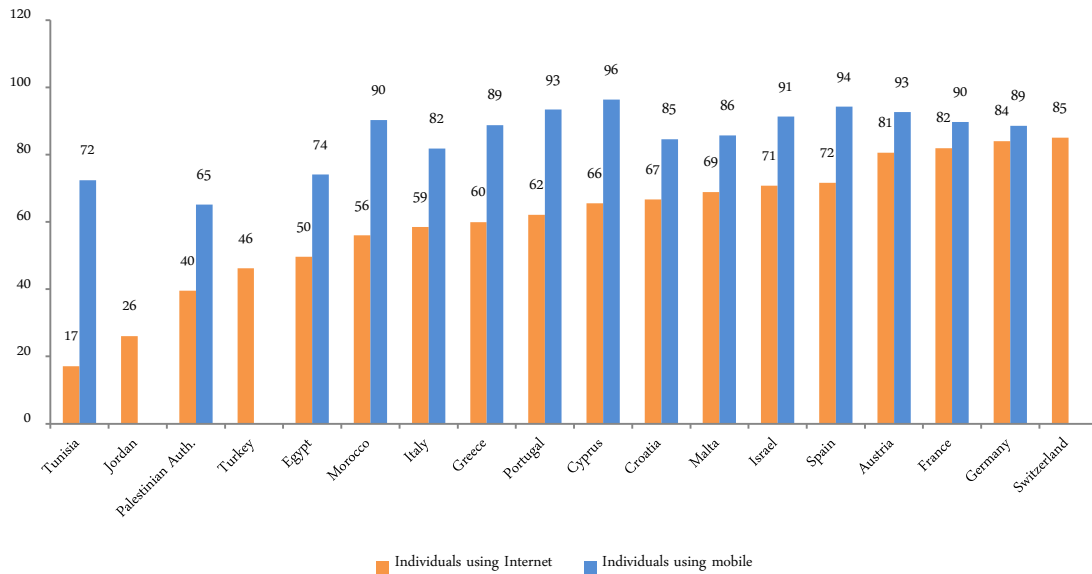
Penetration of mobile cellular is much higher than penetration in fixed telephony in all countries, but especially so for the MENA countries.

Based on ITU data on the declared use of Internet and mobile telephony across the countries by individuals, the distance between most developed countries in the EMERG set and the less developed ones when measuring the use of telecommunication services is very much reduced if we look at the mobile usage. Not only penetration levels of mobile cellular is similar between both set of countries, as we have just seen, but as well the proportion of individuals having used mobile telephony recently is much closer now

² GDP pc: Gross Domestic Product per capita.

between both. Morocco, for example, shows higher mobile usage than a good number of European countries³.

Chart 4. Individuals using Internet and mobile in EMERG countries
(% of total individuals)



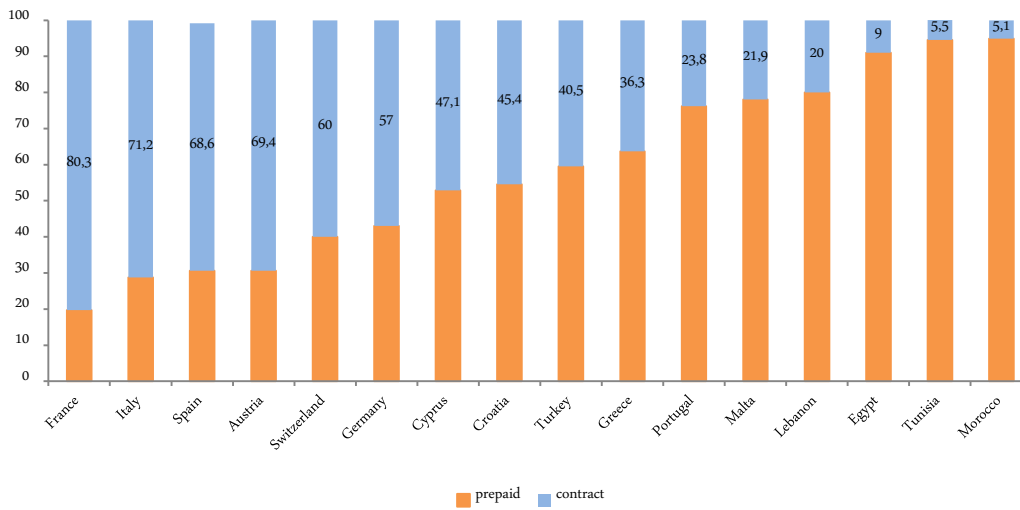
Source: ITU (2014), note that data for Jordan refers to 2009, Tunisia for 2010 and Palestinian Authority for 2011.

Mobile broadband registered much higher penetration levels than fixed broadband and clearly higher growth rates as well. For the EMERG countries as a whole a 25% annual increase was recorded. Notably Morocco, Switzerland, Lebanon, Tunisia and Jordan increased the subscriber base by 50% or more. Mobile broadband penetration, counting the total subscriber base per 100 inhabitants, was 40.4 in the region. The extensive coverage of 3G networks in all the EMERG members no doubt helped pushing demand for broadband in mobility.

³ Data for mobile usage in Morocco and Palestinian Authority dates back to 2011 and for Israel the available figure corresponds to 2010. For the rest of the countries, data as of 2012 has been used from ITU, "Core indicators on access and use of ICT by households and individuals".

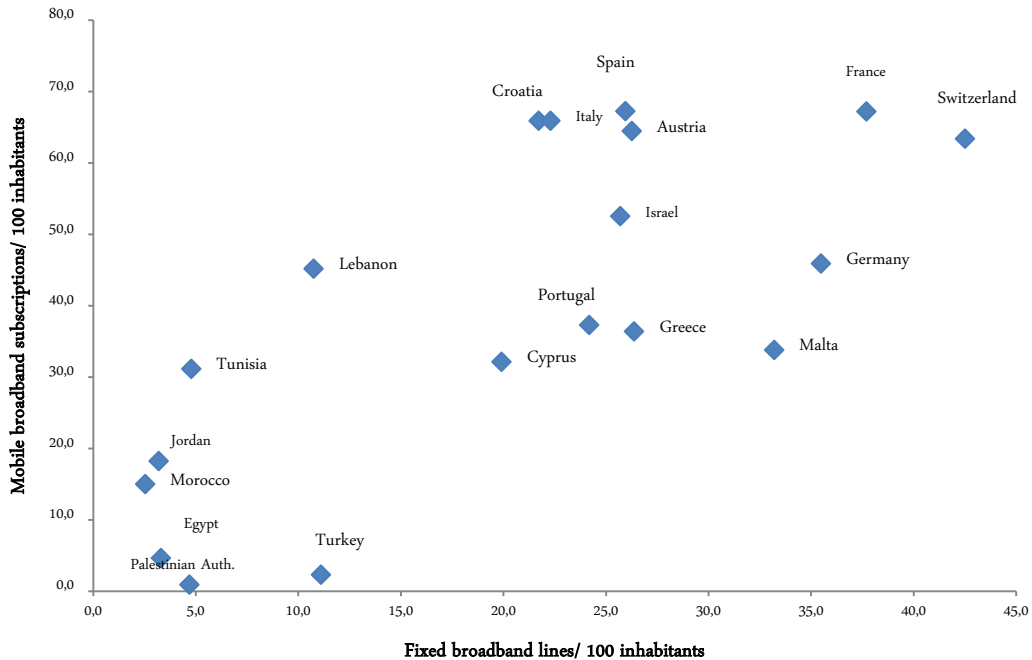
The prepayment modality is the most common way of contracting mobile services in all the MENA countries. Lebanon (80%), Egypt (91%), Tunisia (94%) and Morocco (95%) showed the highest proportion of prepayment subscriptions. The average for all countries considered was 61.5% of subscriptions, though this figure varies a lot across countries.

Chart 5. Proportion of mobile subscriptions by contract modality
(% of total subscriptions)



Source: EMERG

Chart 6. Mobile broadband and fixed broadband penetration



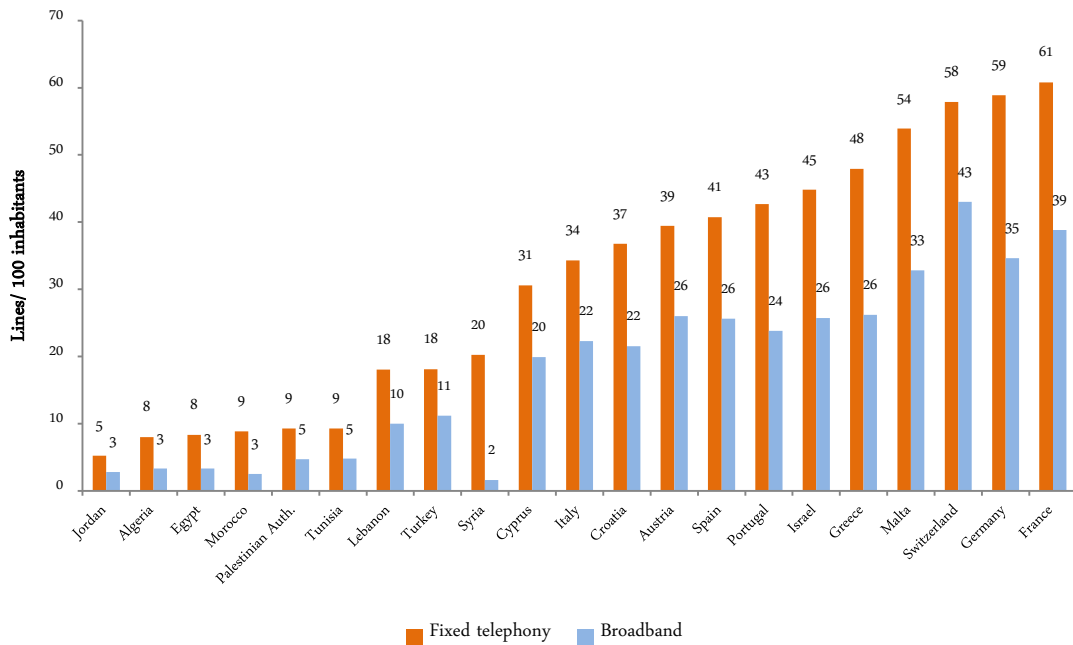
Source: EMERG and ITU

It is expected that during next years with the rise of mobile broadband and the upgrading of mobile networks in many EMERG countries taking place, the rise in the usage of Internet with mobile networks will reduce differences in penetration between all EMERG countries.

2.1.2 Fixed network services: penetration, usage and evolution

The penetration of fixed telephony in EMERG countries almost doubles that of broadband services. The majority of lines are based on the legacy- copper wire- incumbent's network. Through this fixed network the xDSL and in some cases the VDSL standard- which is capable of providing very high speeds- broadband connections are offered as well.

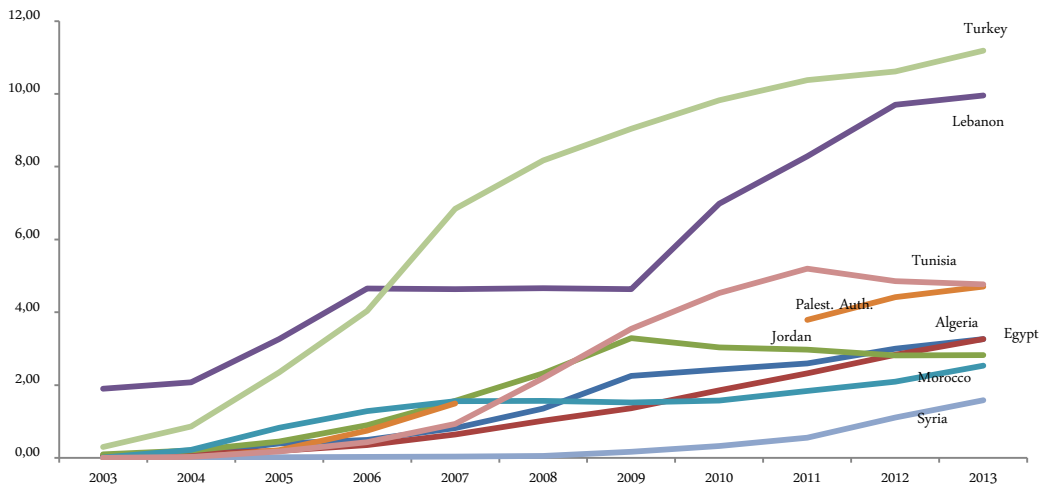
Chart 7. Fixed telephony and fixed broadband penetration, 2013
(lines/ 100 inhabitants)



Source: EMERG and ITU

The evolution of broadband uptake has been different depending on the development of the country, among other factors. From the figures shown below it is clear that rapid two digits and increasing growth rates that in most of the European countries took place in the initial period 2001-2006, for the rest of the countries, though, took two to three years longer to occur. One relevant finding is that even if most of the countries stand now in a mature stage of penetration, where growth rates are positive but decreasing, still very healthy rates of increase in the stock of broadband connections is taken place year after year. The supply of better- faster- connections all across the EMERG set of countries, the bundling of broadband together with other services and the lowering of prices in many cases, is helping in extending the penetration of broadband significantly.

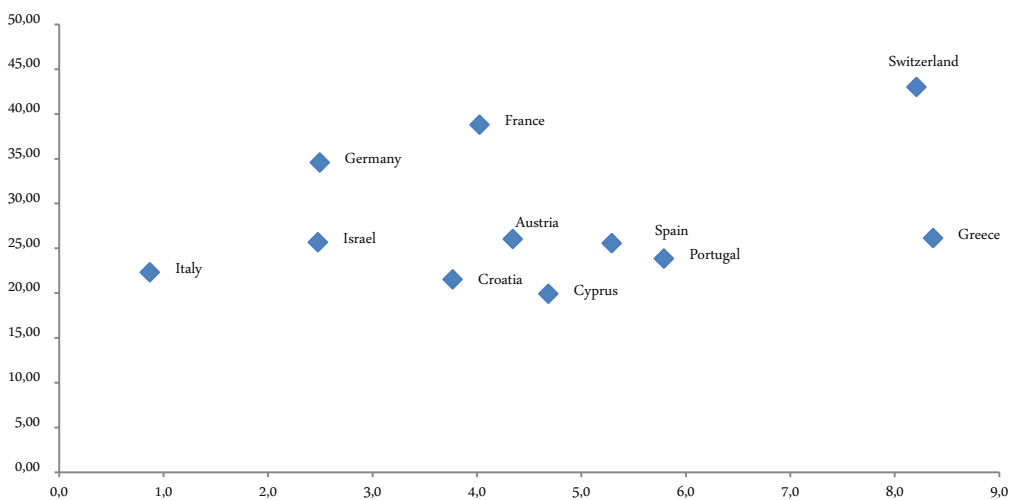
Chart 8. Evolution of fixed broadband penetration in MENA countries
(lines/100 inhabitants)



Source: ITU

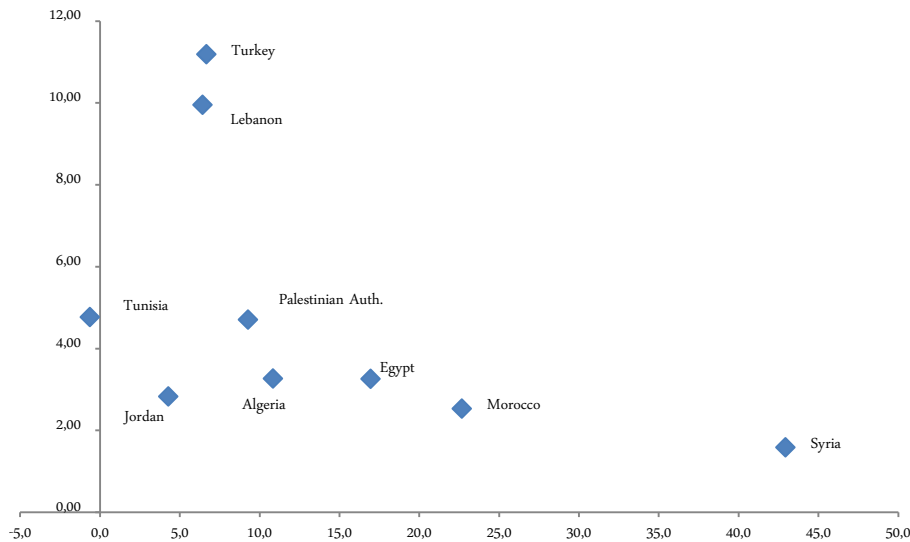
In the MENA countries during 2013, 11.2% growth figure was reported, more than double the rate registered in European countries.

Chart 9. Penetration and growth of fixed broadband in the European countries
(as lines/ 100 inhabitants and annual growth rate)



Source: ITU

Chart 10. Penetration and growth of fixed broadband in MENA countries
(lines / 100 inhabitants and annual growth rate)

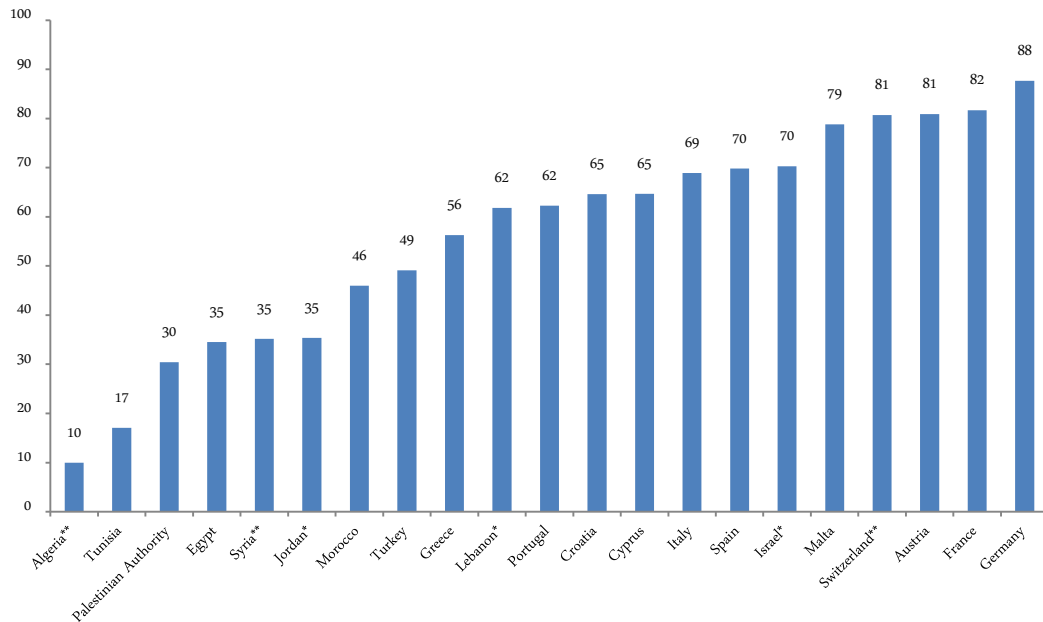


Source: ITU

In relation to fixed broadband there is a group of countries with high rates of penetration growth during 2013, 9% or higher: Egypt, Algeria and Morocco. Very close to them stands Greece with an 8% annual rate. The rest of the countries, except Tunisia, registered moderate albeit in all cases positive and significant growth rates. The European countries registered an average 4.4% growth rate in penetration- showing in the last nine years a trend of positive but decreasing growth rates. The MENA countries in EMERG, by contrast, more than doubled that figure, with an average overall growth of 11.9% in 2013 although penetration levels in both group of countries differed notably still⁴.

Based on ITU figures an interesting comparison can be made across all the EMERG countries in terms of real penetration of internet in households. Morocco and Lebanon, most notably, achieved in 2013 real penetration figures in terms of internet access not very different from those registered in European countries.

**Chart 11. Households with Internet access
(% of total HH), 2013**



Source: ITU and Eurostat. Note that data for Algeria, Syria and Switzerland refers to 2010, Tunisia for 2012, Lebanon, Israel and Palestinian Authority for 2011.

2.1.3. Market shares of leading firm in the more relevant markets

The leading firm in fixed telephony is in all cases the historic incumbent, which in several cases still holds practically the whole of the retail market, as in Tunisia, Jordan, Egypt and Lebanon. Across all the countries included the average market share of the incumbent was 75% of all telephony lines. It is noteworthy the competition induced by alternative entrants in Morocco and in practically all of the European countries where market shares of the leading firm were below 60%.

One clear trend in practically all markets considered is the declining weight of the incumbent operator. Only in the last year 2012- 2013, the market share of the leading firm declined in all countries, with a major reduction in Morocco (-14 pp). The declining market share has to be considered as well in the context of a declining market in size, i.e., in the majority of EMERG countries the stock of fixed telephony lines declined significantly during the period, except in Syria, Palestinian Authority- which registered growth above the 2% threshold-, and Lebanon and Malta which practically maintained the telephony lines stock at previous levels. The rest of the countries registered absolute declines. Most

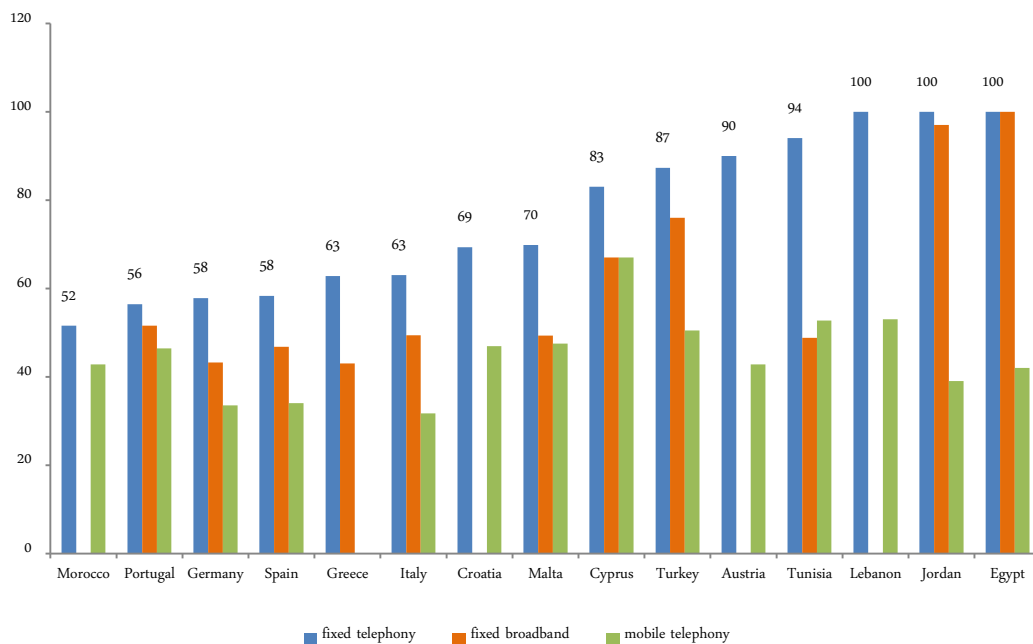
notably Austria, Morocco, Croatia, Switzerland, Tunisia, Greece, Turkey and Cyprus, show reductions above 2% figure in the last year.

Comparing the declining trend in fixed lines and the healthy growth rates in mobile telephony subscriptions, it is clear that mobile usage is replacing the traditional fixed telephony consumption.

It is noteworthy as well the fact that market shares of the biggest operator in broadband is significantly lower than the share registered in the traditional fixed telephony service. Except in Jordan, Turkey, Egypt and Cyprus, the market share of the leading broadband provider was around 50% or below in all cases.

Chart 12. Market share of leading firm in the main retail markets

(% of lines / total)



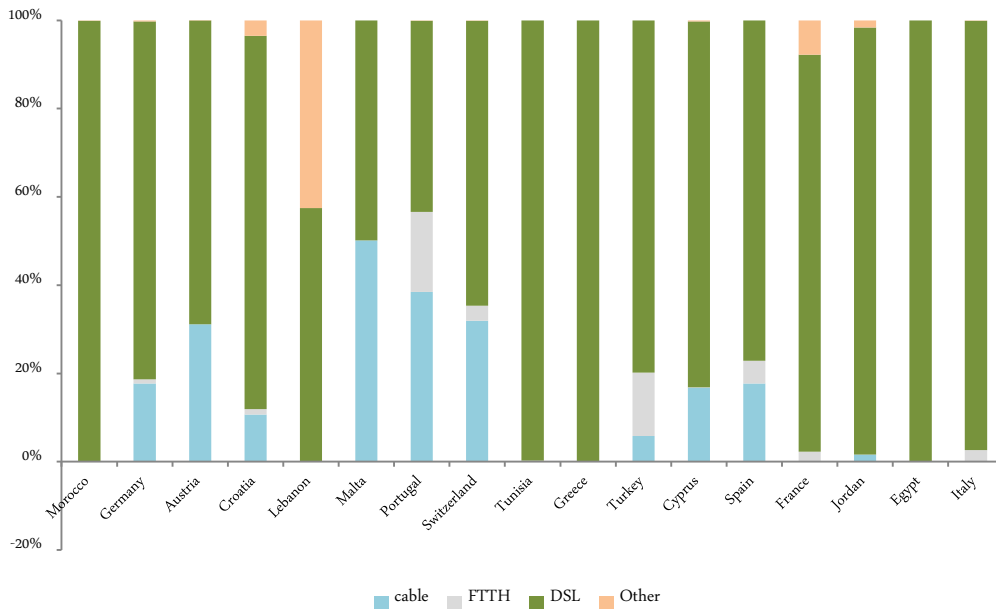
Source: EMERG

In a good number of countries alternative fixed network infrastructures are a reality. All European countries plus Turkey have a deployed FTTx or a cable infrastructure in place, but many countries have scarce alternative to the incumbent's network. For the region as a whole 14.8% of broadband lines were supported by a cable network, 3.1% by a FTTx deployment, and still 78.4% were xDSL based. Hence, the relevance still of the legacy-incumbent- fixed network for the provision of broadband services is clear. All the European countries and some South Mediterranean ones as well have introduced

unbundling of the local loop and other wholesale regulation in order to facilitate the entry of alternative operators, though as can be seen from the market shares of the leading firm, still there is a long way to go in the process of achieving more competition and benefits for the consumers derived from more players in the market.

The development of alternative fixed infrastructures varies widely across countries. Whereas in Austria, Malta, Portugal and Switzerland had alternative networks, either cable- HFC or FTTx based, providing more than 30% of broadband connections, some other countries- Morocco, Jordan, Lebanon, Tunisia- had a mere 2% of lines in the hands of alternative network providers.

Chart 13. Distribution of broadband lines by supporting technology
(% of total lines)



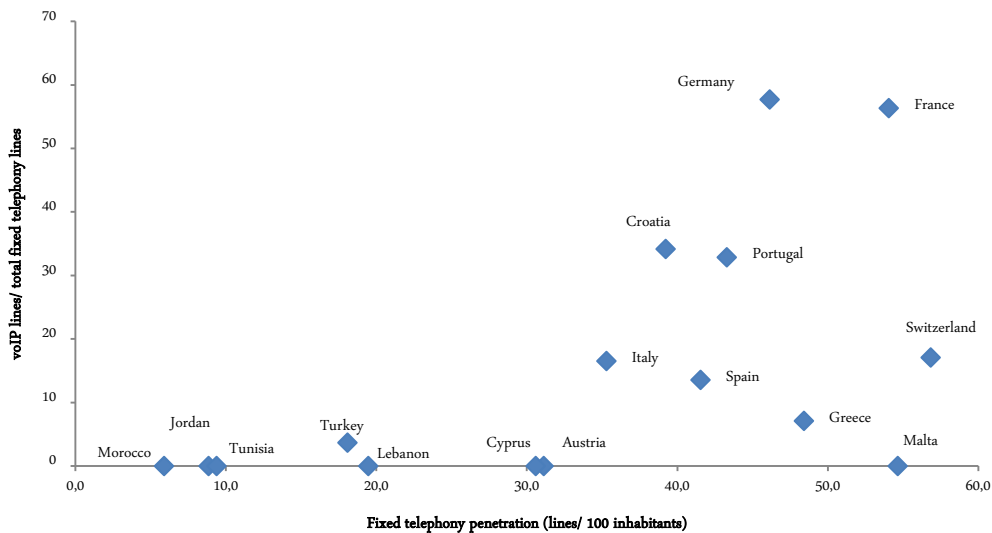
Source: EMERG

Alternative providers may construct their own independent physical network, as the cable or some FTTx operators have done, or else they may use any wholesale regulated service on the incumbents' legacy network to make entry into the market possible. In those countries where no significant deployment of an alternative physical network has been achieved it is crucial to regulate the network of the incumbent and to monitor the functioning of these wholesale services so that entry occurs and a level playing field for competition to take place is created. The regulation of the incumbent's network, based either in direct access- with the unbundling of the local loop-, or the indirect access- with

a definition of a bitstream service-, has created big welfare gains in the European countries that implemented it.

Voice services are being predominantly provided based on the traditional legacy –copper wired based- network in most of the countries. However, in some countries due to unbundling of wholesale services at the local loop and, in some cases, due to the deployment of alternative fibre based infrastructures, voice over IP, voIP, services have a significant presence, as in France and Germany where more than 50% of fixed active fixed telephony lines are based on voIP. As NGA networks are being deployed, a growth in this type of voice service is expected all across the set the countries.

Chart 14. Fixed telephony penetration and proportion of VoIP lines
(% of total lines)



Source: EMERG

3. Regulatory development in the EMERG countries

3.1 Institutional layout

The first section examines the general institutional framework and legal environment in which the National Regulatory Authorities (NRAs) and market players operate.

The European Legal and Regulatory Framework approved in 2009 for electronic communications, -and in particular the Framework Directive- introduced specific provisions relating to the sectorial NRAs independence and accountability which shapes the institutional layout of the European NRAs.

This section includes questions concerning the general provisions on the NRAs' regulatory capacity. These are described in the following sub-sections:

- NRA's independence.
- NRA's governance.
- NRA's competences.
- NRA's powers.
- NRA's accountability and transparency.
- Structure and staffing.

3.1.1 NRA's independence

The NRAs are supposed to act independently of both political bodies and market players.

Recital 13 of the Framework Directive 2009/140/EC (FM Directive) and Article 3.3a of the same Directive introduce the principle of NRAs independence from any political pressure in their activities of ex-ante regulation and dispute resolution. The objective of this obligation is mainly to avoid the risk of conflicts of interests between the regulation of the sector and operational or financial interest and to ensure the impartiality and transparency of the decisions of the NRAs.

With the new EU Framework the principle of independence became an essential institutional tool for a more effective application of the regulatory framework.

The mentioned recital refers to independence as the right of the NRAs to be protected not only "against external intervention" but also against any "political pressure liable to jeopardize its independent assessment of matters coming before it"; also, "express provision should be made in national law" and "rules should be laid down at the outset" in order to protect such NRAs independence.

In most of the EMERG countries, there are independent regulatory authorities for the regulation of the telecommunication sector. According to the reported data, these countries are Portugal, Germany, Lebanon, France, Jordan, Morocco, Switzerland, Austria, Malta, Tunisia, Croatia, Greece, Turkey, Italy and Spain.

However, in some countries there is no a formal independent regulatory body, that is the case of Israel, in which the Ministry of Communications assumes the role of regulatory body, and Palestine, with the Ministry of Telecommunications acting as regulator.

Regarding the independence from political bodies, in a large majority of the EMERG countries the Government explicitly has not any power to give instructions to the independent NRAs in the exercise of the tasks assigned to them. In the case of Germany, Switzerland and France (procedure for spectrum allocation even if only ARCEP is competent to choose the winners of the contest) there are some provisions which establish the possibility for the Government/Ministry to give directions in certain issues related to the sector. It should be highlighted than in the case of Germany the Ministry has never issued a direction.

3.1.2. NRA's governance

The Framework Directive defined the "national regulatory authority" as *"the body or bodies charged by a Member-State with any of the regulatory tasks assigned in this Directive by Specific Directives"*. As a result, whoever that performs a task that should be assigned to an NRA has to comply with all relevant institutional requirements.

Article 3.3a of the EU Framework Directive formalizes the principle of political independence of the NRAs in the performance of the tasks assigned and lays down several provisions in order to ensure this principle. For instance, the Directive states that NRAs' heads or Board members shall not be dismissed unless they do not meet any longer the requirements predetermined by national law for the performance of their tasks; also, any decisions in this respect shall be reasoned and made public.

In this section it is analyzed the governance regimes of the National Regulatory Authorities of the EMERG countries. To that end, it is examined the appointment procedures of the Heads and Board members, the lengths of mandates, the provisions regarding their renewability and the grounds for dismissal.

Governance systems that have been set up to regulate the telecommunication sector by the countries examined vary considerably across the countries examined. It is important to note that a one-size-fits-all concept cannot be devised.

- **Appointment procedures of the Heads**

The Head of the National Regulatory Authority is usually appointed by (i) the Prime Minister or President (France, Italy, Egypt and Lebanon) or (ii) by the Minister in charge of the telecommunication sector (Austria).

In some of the countries examined (i.e. Spain, Italy), the Heads are elected after having consulted the Parliament or the relevant Parliamentary committees (France). In the case of Spain and France, the Parliament has a veto right, whereas in none of the South Mediterranean countries the Parliament plays a role in the election of the Head.

In the vast majority of the EU countries the appointment procedure is transparent and set in law. Moreover, in most of them specific-sector requirements are established (expertise, knowledge, reputation, etc.). This is the case of Spain, Greece and Cyprus. Turkey is the only non-EU country which also establishes technical requirements for the election of the Head.

Table 17. Provisions regarding the governance regime

NRA	Length Head's mandate	Is the mandate renewable?	Is removal possible?
AUSTRIA	5 years		Yes
CROATIA	5 years	Yes (no limitation on terms)	Yes
CYPRUS	6 years	No	Yes ⁵
EGYPT	2 years	Yes (multiple times)	No
FRANCE	6 years	No	No, Head terms is irrevocable
GERMANY	5 years	Yes (one time)	Yes
GREECE	4 years	No	Yes
ISRAEL			Not applicable
ITALY	7 years	Yes	No
JORDAN	4 years	No	Yes

- **Length of the mandate of the Heads and renewability**

The average term of the mandate of Heads and Board members varies between 5-6 years, whereas in Italy is 7 years, in Malta 3 years and just 2 years for Egypt.

In the majority of the countries, the renewal of the mandates of the Head and the Board members is not possible. This is the case of Cyprus, France, Greece, Jordan, Malta, Portugal, Spain, Tunisia and Turkey. There is no any distinction between European and South Mediterranean countries in this regard.

⁵ Removal is only possible in case of incapacitation or due to gross misconduct.

On the other hand, for Croatia, Egypt, Germany, Italy and Switzerland, the Head and the Board Members can be appointed again. In the case of Germany, he/she can be renewed just one time.

- **Grounds for dismissal**

Removal of the Heads of the Board members is possible in the vast majority of the EMERG countries (17 out of the 19) with the only exception of Italy and France. In the French case, it is explicitly indicated that removal is not possible, and in case of resignation, a replacing member is appointed for the remaining period of office of his antecessor. For Italy, the President of the Authority cannot be dismissed.

Article 3.3a of the EU Directive clearly states that grounds for dismissal shall be defined in advance by the national law. This condition is naturally fulfilled by all the European EMERG countries. In every European country provisions are in place determining the circumstances for the dismissal of the Head or Board members. However, these provisions are heterogeneous and vary from country to country.

On the contrary, in most of the South Mediterranean countries, the grounds for dismissal are not explicitly defined in advance in law. This is the situation in Egypt, Israel, Morocco and Tunisia. In the case of Jordan, despite the clarity of the Law, some articles may create an ambiguous perception

In Switzerland there are no specific provisions regarding the removal of commissioners. The usual grounds for dismissal are infringements of contract or general conditions and rules and conflict of interest.

3.1.3. NRA's competences

The EU electronic communications directives provide for a wide range of powers, responsibilities and tasks to be vested in NRAs in order to ensure effective competition between market players. The NRAs play a central role in effectively implementing the regulatory framework since many relevant powers and tasks are directly assigned to them.

- **Distribution of competences among different bodies**

The large majority of the NRAs confirmed that independent NRAs are responsible of the whole range of tasks applicable to the regulation of the telecommunication sector. This is the case in the following countries: Israel, Portugal, Germany, France, Jordan, Morocco, Lebanon, Austria, Palestine, Croatia and Greece.

However, there is a minority of countries (Spain, Malta, Switzerland, Cyprus, Italia, Tunisia and Turkey) where the responsibilities of the regulation of the sector are split between different bodies or agencies or between the independent authority and the Ministry. In France for example, ARCEP is responsible for all economic ex-ante regulation, for symmetrical and asymmetrical regulation and telecommunication spectrum allocation but other agencies are in charge of broadcast regulation (CSA), personal data protection (CNIL), network security (ANSSI) or the protection of rights on the Internet (HADOPI).

In the case of Tunisia, the independent authority INTT is responsible for the ex-ante regulation whereas the assignment of spectrum, the network security, digital signature and TV regulation fall under the responsibility of other agencies.

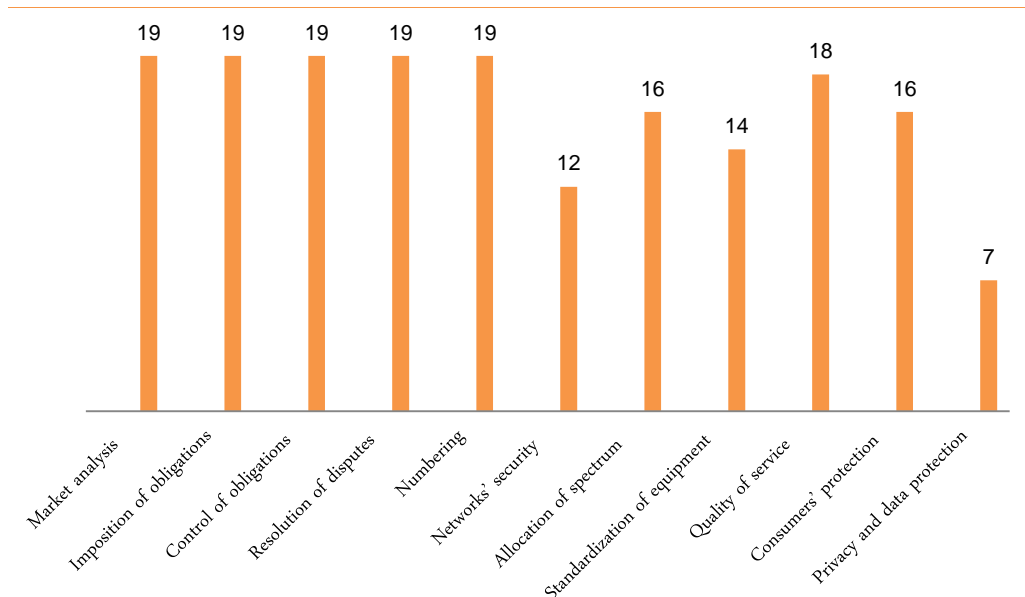
As for Turkey, ICTA is competent for the regulation of the whole telecommunication sector with the exception of the rights of way, attributed to the Ministry of Transportation, Communication and Maritime.

- **Competences for the regulation of the telecommunication sector**

Article 3.3 of the EU Framework Directive lays down that ex-ante market regulation and dispute resolution between undertakings shall fall under the remit of the independent NRA's competences.

It can be concluded that this requirement is fulfilled by all the EMERG countries participating in the survey when designing the institutional setup of the regulatory bodies. In particular, all the NRAs positively affirmed that they are competent for the regulation of the market analysis, for the imposition of obligations and the resolution of disputes. 17 out of 19 NRAs also confirmed that they have attributed competences on numbering, with the exception of the Spanish CNMC, where these competences were assigned to the Ministry of Industry.

**Chart 18. NRA's competences regarding the telecommunications sector
(number of NRAs)**



Source: EMERG

Quality of service

The large majority of NRAs also confirmed that they exercise competences with regards to quality of services, with the exception of Spain and France (in France, quality of service is part of operators obligations). All South Mediterranean countries exercise competences in this area.

Consumers' protection

In most of the cases the independent authority exercise powers as for consumers' protection. Morocco is the only MENA country with no powers in this area.

Standardization of equipment's and network security

In 14 countries the independent authority has powers regarding the standardization of equipments and network security. In fact, all the South-Mediterranean NRAs are fully competent in this area.

Privacy and data protection

Finally, the benchmark reflects that only less than a half (7) NRAs privacy and data protection have assigned related competencies with respect to privacy and data protection. It should be noted that 5 out of 7 are from MENA countries, in particular Israel, Jordan, Lebanon, Turkey and Palestine. On the contrary, only 2 European NRAs, Croatia and Switzerland, exercise powers on these matters.

- **Converging NRAs in the EMERG countries**

In the recent years, there is a trend worldwide to converge different independent authorities from different sector into one-single NRA with broad powers for the regulation of various economic sectors.

In the EMERG countries, the majority of the NRAs exercise some converging competences, in particular in relation with the postal sector (15 NRAs).

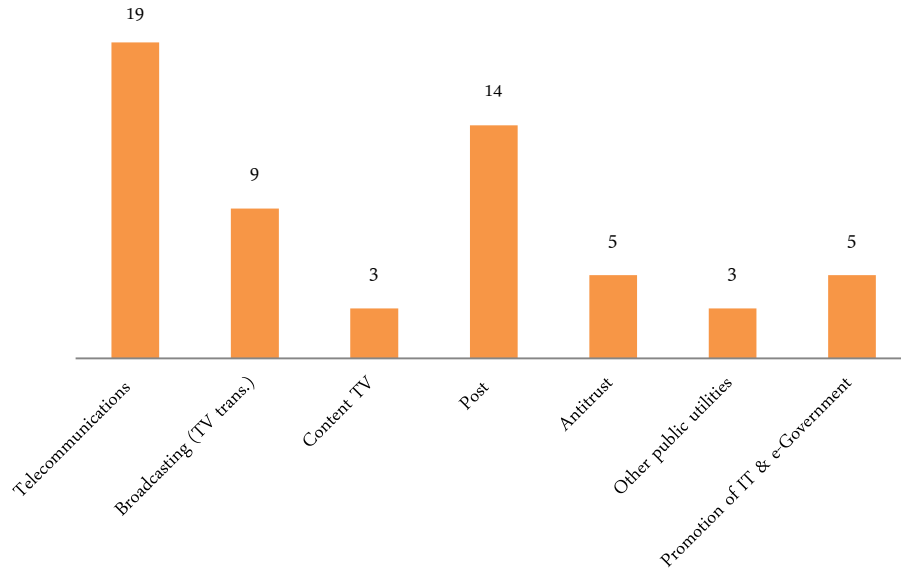
As for the audiovisual sector, a total of 9 NRAs have partial competences concerning broadcasting, this is the case of Spain, Italy, Switzerland, Austria, Palestine, Greece, Turkey, Cyprus and Italy. However, it should be noted that the scope of competences in the media sector is not homogeneous. For instance, only Switzerland and Italy are competent with respect to audiovisual content, whereas Palestine is responsible only for the assignment of spectrum and Turkey for the TV transmission.

Only few countries have attributed competences with respect to antitrust, this is the case of Spain, Greece, Jordan and Morocco, with some particularities. However, the Spanish CNMC is the only NRA with full competences for ex-post regulation across all the economic sectors. In the case of Morocco, ANRT acts as antitrust authority only for the telecommunication markets.

With respect to the converging NRAs in the field of IT promotion and e-Government, only are present in 5 countries, Jordan, Switzerland, Palestine, Cyprus and Morocco (in cooperation with the Ministry).

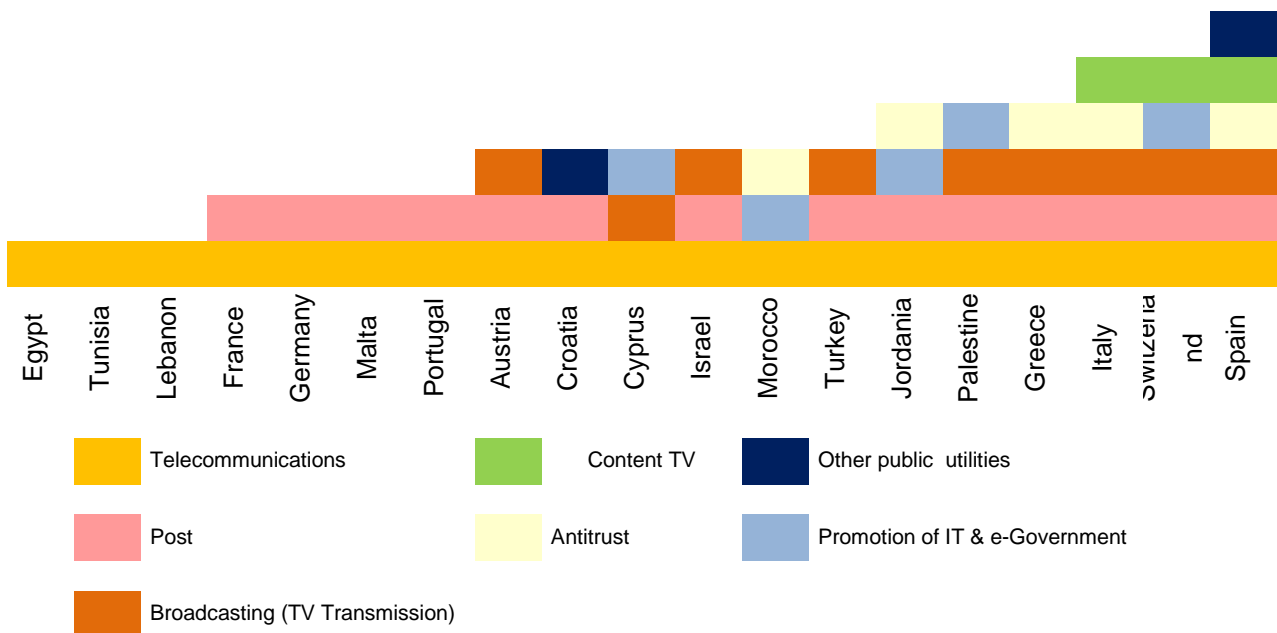
Multi-utility converging authorities are present only in few countries, all of them from the European Union. This is the case of Spain, Germany and Croatia.

**Chart 19. Converging NRAs in the EMERG countries
(number of NRAs)**



Source: EMERG

**Chart 20. Converging NRAs in the EMERG countries
(by sector)**



3.1.4. NRA's powers

- **Request of information**

All the EMERG regulators confirmed that they have powers to request information to the sector agents in the performance of their tasks.

- **Powers of enforcement**

The European Framework on electronic communications provides to NRAs a complex set of tools to ensure the enforcement of the decisions taken by the National Regulatory Authority, consistent of remedies (sanctioning procedures and fines) and judiciary review measures. In addition to the consultation procedures in order to ensure transparency and predictability top the legal framework.

The basic elements related to the enforcement power of a NRA are laid out in a Law, a legislative instrument not susceptible to easy revocation by a government authority and thus able to ensure stability and predictability to the market. Then the secondary legislation typically addresses fundamental regulatory issues such as the sanctioning procedure, the practical steps taken to grant transparency and participation to the proceeding to the operators and the citizen, the possibility to access the documents and so on.

As opposed to this, the enforcement instruments available in the regulatory systems of MENA countries differ greatly from the EU approach. In some cases the legal framework of the country does not specify whether the NRA has the power to impose penalties at all, or as is the case of Lebanon, the Law was never enacted by the Ministry.

With respect to the survey, the vast majority of the EMERG countries provided a positive answer concerning the direct enforceability of their decisions, i.e. that the entry into force of their decisions is not subject to an act from another Authority. Only 2 countries provided a negative answer, France and Egypt. Turkey and Israel made some clarifications

As for France, decisions pursuant to Article 5 of the EU Access Directive and to Article 4 of the EU Authorization Directive that require the prior homologation of the Ministry of Telecommunications, without this entailing a discretionary veto power. These decisions have to be published at the "*Journal Officiel de la République*". Moreover, ARCEP decisions regarding dispute settlements can be subject to an appeal before a judicial

court (*Cour d'appel de Paris*) and some other before the supreme administrative jurisdiction, the *Conseil d'Etat*.

In Turkey, the Authority's decisions are enforceable directly without subject to an act from another authority, according to the article 19 of the Public Financial Management and Control Law dated 10/12/2003 numbered 5018, on the regulatory and supervisory bodies' budgets including ICTA. However, according to the Electronic Communications Law, the Board shall publicize proper decisions by appropriate means foremost under internet environment. Regulatory Board Decisions as communicate and by-law, after being consummated by the Board, shall be forwarded to the relevant Ministry and the Prime Ministry so as to be published in the Official Journal.

- **Imposition of fines**

With the exception of Austria, Palestine, Jordan, Egypt and Lebanon, all the EMERG regulators have powers to impose fines or monetary sanctions. In some cases (Palestine, Jordan and Egypt), the legal framework of the country does not specify whether the NRA has the power to impose penalties at all.

In Jordan, the enforcement powers are stipulated in Article 40 of the law, where TRC has the Authority to cancel either partial or fully the license in the circumstances of not applying the TRC's decisions. The terms and conditions of the license also gives TRC further enforcement powers as licensees are obliged to comply themselves to the legislations including TRC's instruction as stipulated within the License's granted to them. Further, TRC's fine's decisions are considered administrative and collected on the base of granting the TRC powers to such fines where the state procedures are applied to collect the fines.

In the case of Lebanon, the Authority shall ensure that a Public Telecommunications Service Provider with a significant market position may not abuse any such dominant market position. The Authority may restrict a Public Telecommunications Service Provider with a significant market position from obtaining additional Public Telecommunications Services Licenses or require compliance with regulatory, tariffing and accounting rules and other precautionary measures found by Authority to be consistent with competitive markets. In summary, TRA can impose specific regulatory measures on SMP providers such as functional separation, accounting separation, pre-approval of RIO and pre-approval of tariffs. However, TRA has not the power to impose sanctions and fines as the Law was never enacted by the Ministry.

In almost no MENA country has set out a secondary legislation identifying the steps to be followed in a sanctioning proceeding, the practical steps taken to grant transparency and participation to the proceeding to the operators and the citizen, the possibility to access the documents and so on. As a result, the sanctioning procedure adopted by the NRAs is often very unclear and it fails to generate a feeling of trust among the NRA and the operators or the citizen.

- **Judicial review**

Although all MENA countries declared that fully review of the NRA's decisions is possible, the approaches taken by the MENA Countries often differ from the European best practice. In particular, the following issues were identified:

- The review Courts are usually not specialized and lack competence in the electronic communications sector. In some cases (Lebanon), judges do not even recognize the independence of the regulator.
- In many cases the appeal before the review Courts suspends the enforcement of the NRA's decision; thus any operator who has been condemned by the NRA to the payment of a fine or a specific behavior is brought to challenge the NRA's decision in front of the Court as he will automatically obtain the suspension of the NRA's decision.
- Not always all parties affected by the NRA's decision are allowed to stand and to intervene into an appeal.

- **Advisory role**

As for the ability of submitting proposal for sector legislative amendments to the Parliament, 11 NRAs confirmed that they have this power. In particular, Israel, Germany, France, Croatia, Morocco, Switzerland, Austria, Palestine, Malta, Cyprus and Italy, whereas 7 regulators confirmed that they cannot formally make proposals, i.e., Portugal, Jordan, Lebanon, Tunisia, Greece, Turkey and Spain.

In some cases, the proposals are channeled to the competent ministry, Cyprus, Croatia and Jordan, or need to be approved by the competent Ministry (Malta).

The role of the NRAs advisory role formally envisaged by law in their matters of competence is present in the large majority of the EMERG members. This is the case of Israel, Portugal, Germany, France, Lebanon, Palestine, Malta, Tunisia, Greece, Cyprus, Italy and Spain. However, in other 6 members this role is not envisaged, included 3 MENA countries (Jordan, Morocco, Turkey, Switzerland, Austria and Croatia).

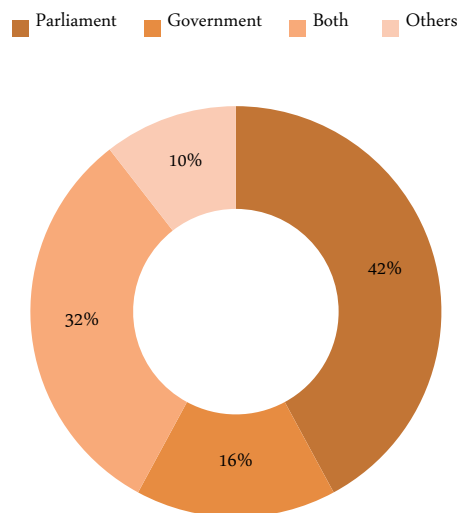
3.1.5. NRA's accountability and transparency

The large majority of the EMERG members report to the Parliament (9) or both to the Parliament and to the Government (7). Only 3 countries report only to the Government.

- To the Parliament: Portugal, Germany, France, Malta, Croatia, Cyprus, Italy, Spain and Austria. In this case, an Activity Report is issued every year to the Parliament listing all the activities of the NRA, but there is no direct accountability foreseen in the law.
- To the Parliament and the Government: Israel, Morocco, Switzerland, Tunisia, Greece, Turkey and Egypt.
- To the Government: Jordan, Lebanon and Cyprus. In this case, the Cypriot regulator is also accountable before the Supreme Court.

Chart 21. Is your authority accountable before...?

(% of NRAs)



Source: EMERG

Some NRAs also are subjected to financial accountability. For instance, according to the Turkish Electronic Communications Law, ICA shall be audited by the Courts of Accounts (as in Portugal), while Spanish CNMC is subject to an audit procedure performed by the Ministry of Treasury.

The European Framework (Recital 15 and Article 6 of the Framework Directive) provides for an obligation on NRAs to consult all interested parties on proposed decisions, allowing them a reasonable timeframe and taking any relevant comment into account before adopting the decision.

In this respect, all the EMERG members carry out consultation procedures before adopting relevant decisions and for the large majority of regulators this is a mandatory procedure, with the exception of Switzerland, Palestine, Tunisia and Egypt where there is not a legal obligation specified in the law.

With respect to the publication of decisions, all the regulators publish their decisions, usually in their website. In 88% of the cases, it is mandatory.

3.1.6. Staffing and budget

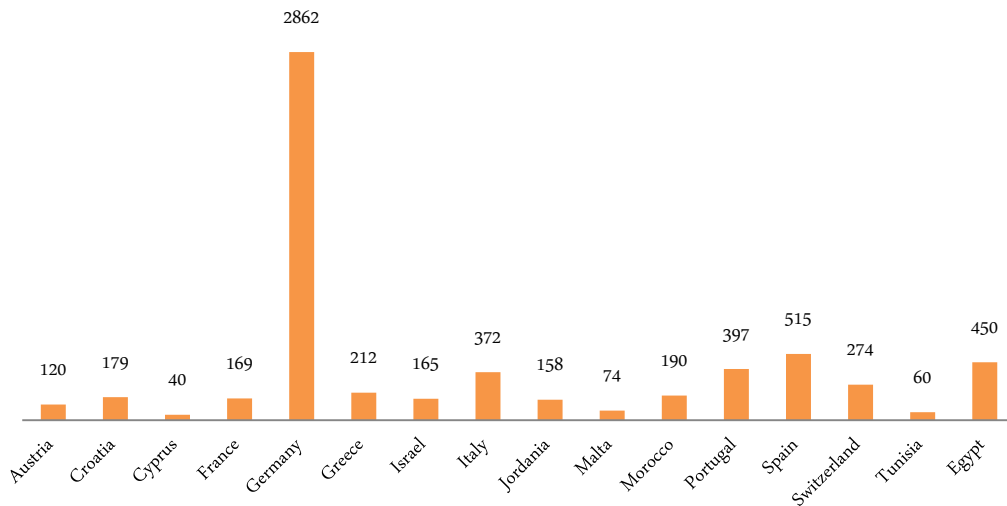
The Framework Directive refers to the need of ensuring financial and human resource available to NRAs as a further tool to ensure political independence. Articles 3.3 and 3.3.a lay down that NRAs shall be endowed with all the necessary resources. Recital 13 of the 2009 Framework Directive makes explicit that the NRA should have its own budget allowing it, in particular, to recruit a sufficient number of qualified staff.

- **Staff**

Chart 22 shows an overview of the staff employed by EMERG members. It cannot be easily outlined any conclusion due to lack of homogeneity among Regulators in terms of the competences attributed to them. Apart from that, in some cases, for instance Germany, the regulator has also local branches across the whole territory. That is the behind its extraordinary high number of employees.

Some of the NRAs were entrusted with new functions in 2013-2014, either in the telecommunications sector or in other fields. This has result in an increase of the total number of employees. For instance, in Spain the total staff of the regulator dramatically increased in 2013 due to the creation of CNMC, which assumed the competences of five sector-specific market regulators (including the former CMT) together with the antitrust authority.

Chart 22. Number of employees in the EMERG NRAs



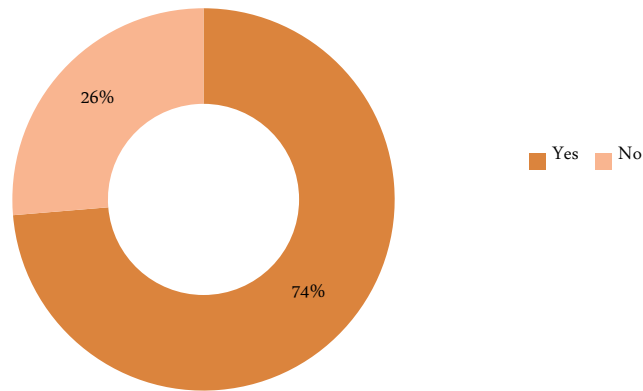
Source: EMERG

- **Budget**

Concerning the definition of the NRA's budget, 15 members declared that they have autonomy to design and prepare their own budget, with the exception of Israel, France, Germany and Cyprus. In this case, the budget was subjected to external approval by the Parliament and the Council of Ministers. However, it is generally assumed that certain Government guidelines are assumed by the NRAs when preparing the draft, related to issues such as general budgetary restrictions, travel expenses, remuneration policy for staffing and so forth.

In the majority of the cases, the NRAs budget is included in the State Budget as it is the case in Spain, Portugal, France, Switzerland and Germany.

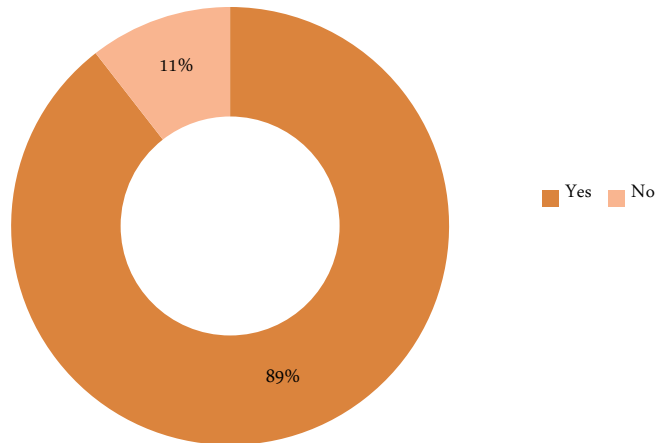
Chart 23. NRAs' autonomy to define their budget
(% of NRAs)



Source: EMERG

With the exception of Switzerland, all EMERG members reported that they could autonomously implement the allocated budget. In the case of Portugal, ANACOM has full control over its budgeted expenditure, subject only to an independent audit. However, since 2011, in the context of the Portuguese Financial and Economic Assistance Programme, ANACOM was required to apply the reduction in staff remuneration approved by the Parliament (State Budget Law) that determined a salary cut for public employees and the staff of public institutions subject to a special scheme; meanwhile all career progression and other salary updates have been frozen since 2011.

Chart 24. NRAs' autonomy to implement their budget
(% of NRAs)



Source: EMERG

The budgets of EMERG members vary significantly, reflecting the differences in responsibilities and the complexity of internal structures and roles. The economic crisis has had also an impact on some NRAs budget for 2014, for instance in Egypt, Portugal or Jordan, where a cost containment policy was implemented.

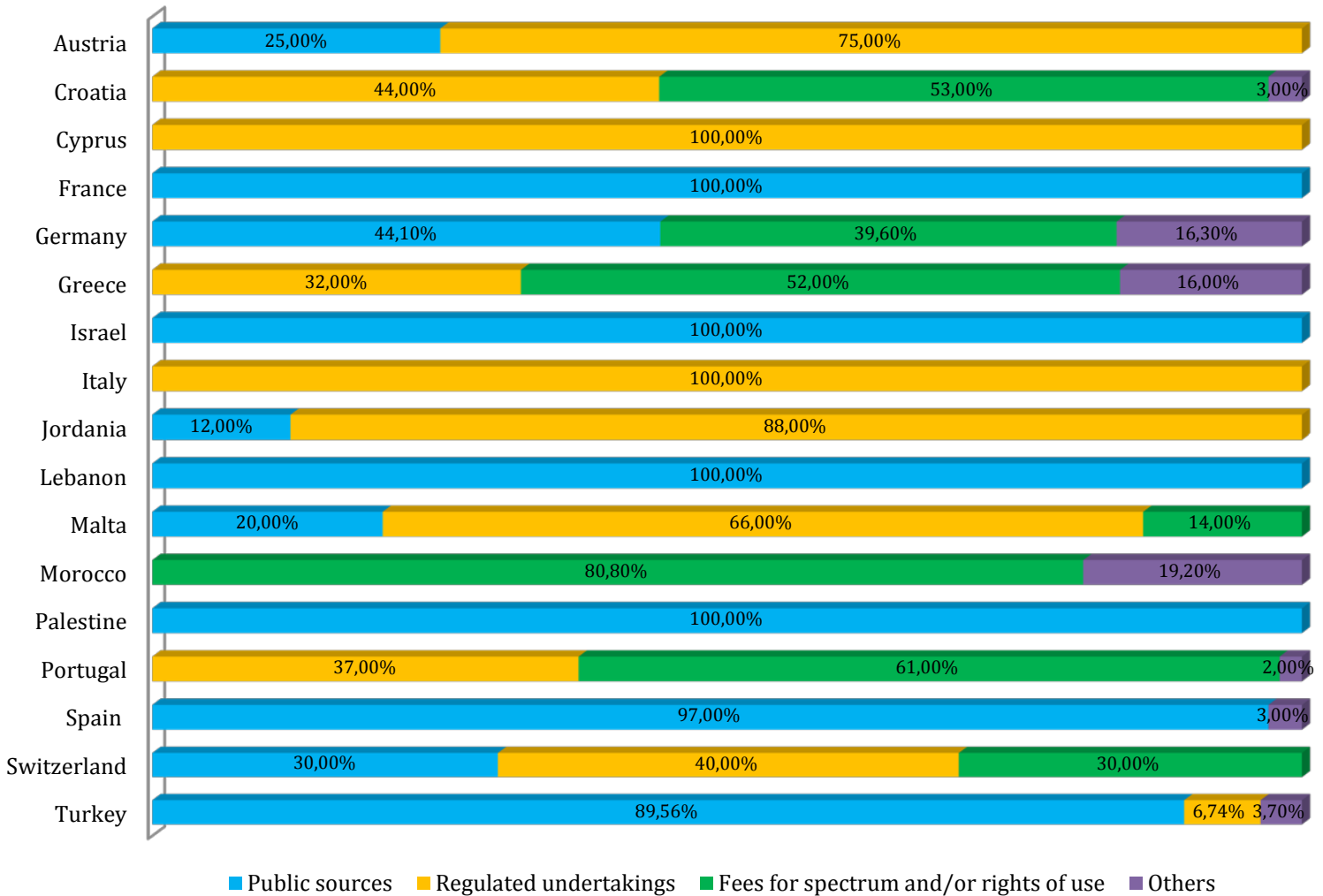
With a couple of exceptions, all the NRAs rely on several sources to finance their activities, mostly from public funding, collection fees and charges from regulated entities, spectrum fees and others sources which vary from country to country (bank interest in Portugal and Croatia, numbering fees, amateur radio, digital signature, radio equipment, in Germany, fines in Morocco, Greece and Turkey).

For the sources of their incomes, the EMERG countries fall into the following groups:

- Countries where almost all revenues come from public sources: France (100%), Palestine (100%) and Turkey (89.56%).
- Countries where a significant part of the revenues comes directly from regulated undertakings: Cyprus (100%), Jordan (88%) and Austria (75%).
- Countries where a significant part of the revenues comes from the spectrum management: Morocco (81%), Portugal (61%), Croatia (54%) and Greece (52%).

8 EMERG countries have not specified the source of incomes of their incomes.

Chart 25. Sources of funding of NRAs' budget (2013)



3.2. Market access, market analysis and imposition of obligations

3.2.1. Authorization regime

According to the European legal framework for the electronic communications, in line with a system of general authorizations, no explicit decision or administrative act by the NRA is required. Any procedural requirements are limited to notification (registration) only. After notification a provider of electronic communication network or services can start commercial activities in the telecommunications market(s) of its choice. From that moment on, it has the right to negotiate interconnection agreements and access to facilities with players that have significant market power (SMP).

Holders of a general authorization have to pay a yearly administrative fee ('charges') to the NRA. These fees have to be cost based i.e. should only cover the actual administrative costs for the activities conducted by the NRA.

Regarding providers of electronic communications networks and services, which do need scarce resources, the situation is different. These providers need to be granted with individual usage rights. The procedure for assignment of radio frequencies should in any event be objective, transparent, non-discriminatory and proportionate. This procedure could either be a comparative tender ("beauty contest") or a competitive tender ('auction). NRAs may levy usage fees for the use of radio frequencies and numbers as an instrument to ensure that these resources are used efficiently.

Regarding the MENA countries, there are significant differences among the various members, taking into account the development of their electronic communications markets, the sophistication of the regulatory regime and the level of competition.

In general terms, the majority of the MENA countries have started to align (parts of) their legal and regulatory frameworks with (earlier stages of) the European model, considering that mainly on the basis of agreements made within the framework of EU Association Agreements also play a role in this approximation process based on the European best practices.

Concerning the access regime and the openness of the entry to the electronic communications market, although most MENA countries have still only one licensed operator in the fixed market, they have considerable and a good level of competition in the mobile market (except Lebanon), but the number of mobile network operators hardly

exceeds 3. It seems to be doubtful that spectrum scarcity is the main reason in the majority of MENA Countries for limiting the number of mobile licenses to 3. In fact and in the EU countries, there is sufficient spectrum for 4 or 5 mobile operators (Mobile Network Operators, MNOs). It is hard to understand that this could not be the case in MENA countries.

While in most of the European countries (Austria, Croatia, Cyprus, France, Germany, Greece, Italy, Malta, Portugal, Spain, Switzerland and Turkey) it is required notification in order to officially enter in the market, in MENA countries this does not occur.

Italy, Morocco, Palestine and Switzerland, Palestine provide licenses for specific services whereas Israel, Lebanon and Palestine provide individual licenses for multi-services and Israel and Tunisia provide unified licenses (global). In the case of Israel, it is provided not only Portugal and Jordan provide other kind of licenses for specific services, individual licenses for multi-services and also unified licenses (global services)..

Egypt provides licenses for specific services and individual licenses (multi-services). In the case of unified licenses (global services), NTRA, the NRA, is currently in process to issue the unified license regime in Egypt. As for Jordan, there are mainly two types of licenses issued by TRC, the Jordan regulator: Individual and class licenses.

Regarding Israel, licenses are granted as general licenses, for a variety of services; or special licenses, in the case of specific services or services granted to a relatively small number of users.

In Italy, following the EU TLC framework, general authorizations (very similar to notifications) are issued to operators wishing to enter the telecom market with no use of scarce resources. If scarce resources are needed to operate, then the Ministry will issue individual licenses granting the rights of use of the spectrum.

In Jordan, there is simplified licensing regime given that any potential entrant to the telecom market can choose from amongst two types of licenses, namely individual license or class license. Differences between these two types rely mainly on the use of scarce resources, as in the case of individual license. However both licenses are general licenses and not specific to any particular telecom services. Finally, spectrum use has its own licensing management process.

In the context of Lebanon, and according to article 19 of Law n. 431, a license shall be issued by a decree adopted by the Council of Ministers, upon the proposal of the Minister and subsequent to an international tender. The Terms of Reference are prepared by

TRA, the NRA, to the providers of basic telephone, GSM, international telephone and public telecommunications services (including local and international UMTS services).

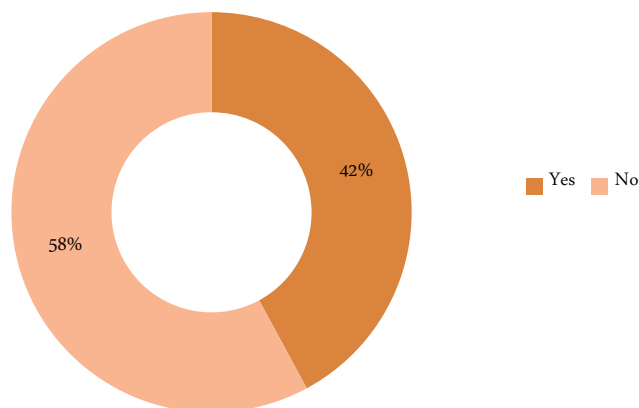
TRA shall also issue licenses for the Providers of the following telecommunications services: private line service, public call offices and pay phones, leased line services, local and international telex and telegraph service, Internet services, data services and any other telecommunications service for which the authority requires similar licenses.

Under the Palestinian context, operators must obtain an individual license for the provision of communications services. In parallel, there is also the issuing of a class license for service providers. Given this, the Ministry of Communication is planning for unified licenses in the near future.

In Tunisia, operators need to obtain a license and granting licenses is a responsibility of the TIC's Ministry.

In Turkey, companies which are willing to provide electronic communications services and/or to construct and operate electronic communications networks or infrastructures shall notify ICTA, the NRA, of their intention prior to the beginning of their activities, within the frame of ICTA's regulations. When companies which have notified ICTA do not need the assignment of resources, such as number, frequency and satellite position for electronic communications services and/or electronic communications network or infrastructure which they plan to provide and/or to operate, they shall be authorized pursuant to the notification to ICTA. In case they need assignment of resources, they shall be authorized upon receiving the right of use from ICTA.

Chart 26. Is the approval of your Government necessary to grant licenses?



Source: EMERG

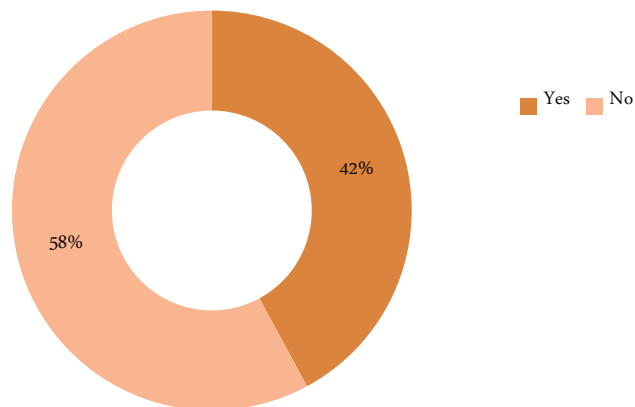
- **Rights of way**

The European legal framework, namely the authorization and access directives (respectively 2002/20/EC and 2002/19/EC), establishes non-discriminatory procedures that aim to grant public rights of way to undertakings provide electronic communications networks or services to the public. In fact, permits issued to undertakings providing electronic communications networks and services allowing them to gain access to public or private property are essential factors for the establishment of electronic communications networks or new network elements. Unnecessary complexity and delay in the procedures for granting rights of way may therefore represent important obstacles to the development of competition.

Consequently, the acquisition of rights of way by authorized undertakings should be simplified. National regulatory authorities should be able to coordinate the acquisition of rights of way, making relevant information accessible on their websites.

Further, in certain cases, Member States may impose the sharing of facilities or property on an undertaking operating an electronic communications network. This type of decision is used when there is limited access to resources due to the need to protect the environment, health or public safety or when it is not possible to reproduce the infrastructures. These sharing and coordination arrangements may include rules for apportioning the costs of facility or property sharing adjusted for risk where appropriate.

When asked if the NRA is empowered to grant rights of way, 8 members (Germany, Lebanon, Austria, Palestine, Tunisia, Croatia, Egypt and Cyprus) answered indicating that their authorities are empowered to grant rights of way. On the contrary, ten of them (Israel, Portugal, France, Jordan, Morocco, Malta, Greece, Turkey, Spain and Switzerland) answered no.

Chart 27. Is your authority empowered to grant rights of way?

Source: EMERG

- **Radio spectrum**

Radio spectrum is a finite natural and reusable resource in high demand, and the devices that use it can easily cross borders. Using spectrum as efficiently as possible throughout the internal market, including spectrum sharing between different applications and users, requires coordination at international level and at European level, taking into account its impact on EU policies.

The Radio Spectrum Policy Programme (RSPP), set by a Decision approved in 2012, is based on key policy objectives and establishes the general principles for strategic planning and harmonization of the use of spectrum in order to ensure the functioning of internal market. In this regard, the RSPP covers all types of radio spectrum use that affect the internal market and sets general regulatory principles, policy objectives and priorities.

This Programme aims to enhance the efficiency and flexibility of spectrum use, as well as preserving and promoting competition, covering areas such as wireless broadband communications, transport, environment protection, earth surface monitoring or research and space exploration.

In Israel, Portugal, Germany, France, Jordan, Morocco, Lebanon, Austria, Palestine (MTIT), Malta, Croatia, Greece, Switzerland, Egypt and Turkey, the NRAs grant spectrum licenses; while Tunisia, Cyprus and Spain answered that their authorities don't. Italy provided no elements.

In Cyprus, the regulatory authority on spectrum (Frequency management, granting rights and monitoring the use) is the Department of Electronic Communications of the Ministry of Communications and Works and not OCECPR, the NRA.

Further, Israel, Portugal, France, Morocco, Austria, Palestine, Malta, Tunisia, Greece, Turkey, Spain, Cyprus and Italy declare that their government plays a role for granting spectrum licenses. In other hand, Egypt, Germany, Jordan, Lebanon, Croatia, Switzerland answered that its government does not play a role for granting spectrum licenses. Italy provided no elements.

Moreover, the approval of the Government is necessary to grant licenses in 8 members (Portugal, France, Morocco, Austria, Palestine, Tunisia, Spain and Italy). On the contrary, in Egypt, Germany, Jordan, Lebanon, Malta, Croatia, Greece, Turkey, Switzerland and Cyprus granting licenses does not depend on the Government's approval. This issue is not applicable to Israel.

In a more detailed view, in Austria, it is only needed the Government's approval when it is the case of a public tender for spectrum allocation.

In France, the Prime Minister approves the granting process proposed by ARCEP and launches the beauty contest or auction. However, it is pending on ARCEP the choice of the winning bidder(s).

In Greece, the approval of the Government is not necessary to grant licenses. However, a Ministerial Decision is necessary in order for the Regulator (EETT) to limit the number of spectrum rights on any frequency band, which is in most cases the first step to any granting process.

In Italy, the authorizations and the rights of use of spectrum are formally granted by the Government (Ministry of Economic Development). However, assignment plans are defined by AGCOM (the NRA) and shall be applied afterwards.

In Morocco, the ministry in charge of the telecommunications sector plays a role in the allocation of licenses. In fact, the Ministry has a sit on the NRA Board (ANRT), with the mandate to review and validate the proposed specifications relating to the license.

In Tunisia, the licenses are approved by governmental decree.

- **Frequency management**

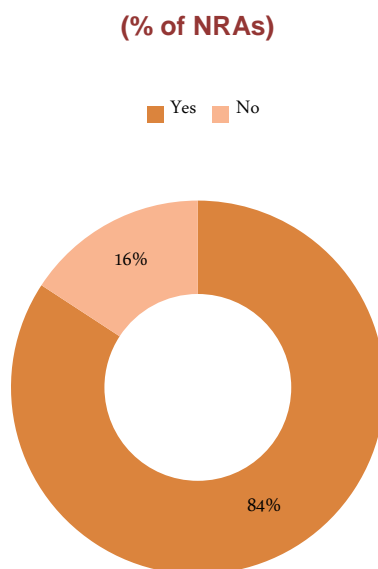
National regulatory authorities play a key role in planning, allocating and ensuring that spectrum is used efficiently. Some NRAs have been heavily involved in the reallocation of spectrum from analogue broadcasting to mobile communications, and from military use to civilian use. Some of this work requires close cooperation with other countries. In other cases, this involvement relies on the role of the ministries.

Israel, Portugal, Germany, France, Jordan, Morocco, Lebanon, Palestine, Malta, Croatia, Greece, Turkey and Italy answered that its authority has responsibility for frequency management and Austria, Tunisia and Spain, answered no.

10 out of 19 NRAs (Austria, Croatia, Cyprus, France, Germany, Greece, Italy, Malta, Portugal, Turkey and Spain) confirm that in their countries secondary trading of spectrum is allowed (in the case of Turkey, it is in a limited way). In Israel, Jordan, Morocco, Lebanon, Palestine and Tunisia, this kind of trading is not allowed.

Refarming/in-band migration is allowed in all members, except in the case of Israel.

Chart 28. Has your authority responsibility for frequency management?



- **Digital dividend**

A digital dividend decision was taken in the cases following members: Portugal (Digital Dividend I, 790-862 MHz), Germany (790-862 MHz was auctioned off for mobile

services), France, Jordan (mainly for LTE services), Turkey, Lebanon, Austria (for xDD1), Palestine, Malta, Tunisia, Croatia, Greece, Spain and Italy. Finally, in Israel and Morocco, there is no such decision. Cyprus provided no elements.

As for the EU countries, the 800 MHz was allocated in all countries, with the exception of Malta, -with no precision on a date.-. Spain has recently finished the allocation process. In all the cases, the band was assigned to provide electronic communication services, in particular, mobile broadband services and wireless broadband (LTE). France and Italy has announced allocation procedures for the 700 MHz band in the coming years (probably 2015 in the case of France).

With respect to the EMERG MENA countries, Lebanon and Palestine, although a decision was taken on the use of the digital dividend band, no action has taken so far. In the case of Lebanon, the switch off of terrestrial broadcasting is planned for 2015. In the meanwhile, the authorities are studying the possibility of allocating part of UHF band for international mobile telecommunications (IMT).

In Turkey, the 470-862 MHz band can be used until 17/06/2015 (the date is set by ITU-RR) for analog television broadcasting. After analog switch off, the 790-862 MHz (800 MHz) is planned to be used for mobile services or services.

In Israel, for historical reasons, in the field of digital dividend, they are operating - for many years- only mobile systems that operate in accordance with the commissions of Region 2 (as set by ITU). Israel began a process that would eventually go to operating in the field of digital dividend according to the bars of region one of ITU. This is still anchored in a footnote (5.316) until 16.6.2015. Background – the region 1 set-digital dividend is regarding to the frequencies 790-862 MHz. In the past, the allocation was for fixed and public broadcasting and following WRC 07 also mobile services, which will enter into force as from 17.6.2015. Therefore, in Israel digital dividend means a different framework from the one currently in force in Europe. However, as described, Israel's Communications Ministry has started a process that eventually, in a few years, will get Israel to the European practice.

In Jordan, the 800 MHz band has been already allocated to advanced mobile services (Namely IMT advanced and Beyond). However, the auction processes of this band lead to no assignment for the time being. Furthermore, the allocation of further spectrum to mobile services in the 700 MHz band will be in line with the outcome of WRC15 and subsequent worldwide activities in regard of industry and regulatory practices.

In depth information on the assignment and allocation of spectrum procedures adopted by the EMERG countries can be found in the Chapter 4 Country Fiches.

3.2.2. Regulatory framework for market analysis

EU Member States have harmonized market analysis practices by virtue of the European legislation entered into force since 2002. In this regard the Directive on common regulatory framework assigns to the national authorities the tasks on the market analysis procedure consisting of three main steps:

- 1) Definition of the relevant market, through the identification of the product/service market and the geographic market, that requires the examination of competitive constraints on the behavior of the service providers and then the analysis of the demand-side substitution and supply-side substitution;
- 2) Assessment of significant market power which implies the evaluation of the position of economic strength allowing a firm the power to behave to an appreciable extent independently of its competitors, customers and consumers;
- 3) The imposition of regulatory obligations such as transparency, non-discrimination, accounting separation, access, price control and cost accounting, etc.

The questionnaire responses on the framework for market analysis point out that the application of the methodologies used under the competition law has become a consolidated, common approach to regulate electronic communication markets within EU member States as well as in non EU countries belonging to the EMERG.

As regards the non EU countries, a very similar approach arises from the responses to the questionnaire. Indeed, in countries like Jordan, Morocco, Switzerland, Tunisia and Turkey national regulators carry out a complete market analysis procedure, based on competition law principles, proceeding from the relevant market definition to the imposition of obligations on SMP undertakings. The only exception is Palestine. NRAs identify operators with Significant Market Power (SMP), except Lebanon. Yet, NRAs with no exceptions impose regulatory obligations on operators with SMP.

In addition, it should be noted a slightly distinction concerning the periodical review and the frequency of reexamination of market conditions within this group of countries. Some of them (e.g. Jordan, Lebanon, and Morocco) conduct market analysis on a regular and stated period while others are more flexible in carrying out the analysis when market developments suggest reconsidering the competitive situation or upon request from a market player.

Table 29. Overview of the market review process

Country	Relevant markets definition	Competition law principles application	SMP operators identification	Regulatory obligations imposition	Periodical review	Frequency of review	
EU members	Austria	YES	NO	YES	YES	YES	3 years
	Croatia	YES		YES	YES	YES	3 years
	Cyprus	YES	YES	YES	YES	YES	3 years
	France	YES	NO	YES	YES	YES	3 years
	Germany	YES	YES	YES	YES	YES	3 years
	Greece	YES	YES	YES	YES	YES	3 years
	Italy	YES	YES	YES	YES	YES	3 years
	Malta	YES	YES	YES	YES	YES	3 years
	Portugal	YES	YES	YES	YES	YES	upon market developments
	Spain	YES	YES	YES	YES	YES	3 years
Non EU members	Egypt						
	Israel	YES	NO	YES	YES	NO	-
	Jordania	YES	YES	YES	YES	YES	upon market developments
	Lebanon	YES	YES	NO	YES	YES	
	Morocco	YES	YES	YES	YES	YES	3 years for mkt def. /each year for SMP def.
	Palestine	NO	NO	YES	YES	NO	-
	Switzerland	YES	YES	YES	YES	NO	upon request from a market player
	Tunisia	YES	YES	YES	YES	YES	3 years
	Turkey	YES	YES	YES	YES	YES	3 years

- **Remedies**

The EU Regulatory Framework for electronic networks sets out how the NRAs should define the relevant national electronic communications markets and analyses whether there are any operators with SMP on those markets. In the event of finding that there are undertakings with SMP in relevant markets, NRAs must propose appropriate regulatory remedies to ensure that effective competition is restored. In such cases, NRAs have the option to use the remedies permitted under the Universal Service Directive and the Access Directive.

The obligations/remedies stipulated in the Access Directive are the following:

- transparency (e.g. pricing policy, terms and conditions for access or interconnection or interoperability, technical interfaces);
- non-discrimination (where market analysis indicates that discriminatory behaviour by the operator concerned could lead to a distortion of competition);
- accounting separation in order to make wholesale prices and internal cross-transfers within a vertically-integrated company transparent;
- access to, and use of, specific network elements and/or associated services or facilities; and
- price controls and cost accounting, particularly for cost-orientation of prices for interconnection and/or access.

The obligations/remedies included in the Directive on Universal Service include:

- regulatory controls on retail services;
- regulatory controls on the minimum set of leased lines and
- carrier selection and carrier pre-selection.

Remedies of an uncompetitive market can either be behavioral, or more critical as structural (such as functional separation). The states have mostly adopted both, but Switzerland and Tunisia implemented only the behavioral ones.

It is worthwhile to show the case in Lebanon, since the TRA has issued an SMP regulation there, however due to the current situation of the TRA and the structure of the market (main providers are all state owned), the regulation was not implemented or applied. Therefore, remedies are not implemented in the market.

As for the scope of services where these remedies are employed to resolve anti-competitive practices, in the following 3 tables (tables 30, 31 and 32), the telecom

services have been divided in two types, one provided through the fixed network, and the other through mobile network. The third table exhibits broadband market being provided by fixed and mobile networks.

Table 30 shows the number of states adopting remedies in the fixed wholesale and retail market segments.

Table 30. Overview of the fixed markets in the EMERG countries

REMEDY	WHOLESALE			RETAIL
	Access & origination	Termination	Transit*	
Regulatory accounting separation	13	14	6	7
Cost accounting	13	13	6	6
Transparency	13	14	7	8
Price control	15	16	7	7
Tariff rebalancing				2
Retail price cap control		1		4
Regulation of retail tariffs	2	1	1	7
Obligation of interconnection	13	16	6	2
Implementation of wholesale offers	15	13	8	1

Table 31 presents the number of states adopting remedies in the mobile wholesale and retail market segments.

Table 31. Overview of the mobile markets in the EMERG countries

REMEDY	WHOLESALE		RETAIL
	Access & origination	Termination	
Regulatory accounting separation	4	12	
Cost accounting	7	14	1
Transparency	6	13	3
Price control	7	16	1
Tariff rebalancing			
Retail price cap control	1	2	1
Regulation of retail tariffs			2
Obligation of interconnection	9	15	
Access to Mobile Virtual Operators (MVNOs)	5	4	
Collocation facilities	7	9	
Implementation of wholesale offers	5	10	
Non-discrimination		1	

As for Table 32, it exhibits the number of states adopting remedies in the broadband fixed wholesale and retail market segments and mobile.

Table 32. Overview of the broadband markets in the EMERG countries

REMEDY	Fixed WHOLESALÉ		Fixed RETAIL	MOBILE
	Infrastructure access	Broadband access		
Regulatory accounting separation	13	13		
Cost accounting	13	12	1	
Transparency	15	13	2	1
Price control	14	12	2	
Retail price cap control			1	
Regulation of retail tariffs	1	1	1	
Unbundling of local loop	15	4		
Collocation facilities	15	12		1
Sharing civil infrastructure	10	5		2
Wholesale offer for ducts	13	4		
Bitstream wholesale offer	2	13		
Non-discrimination	1	1		

3.3 Consumer protection and quality of service

3.3.1.1 Consumer protection

The protection of consumers and of the right for having access to affordable services is at the heart of the responsibilities of regulators. Chapter 4 of the EU Directive on Universal Service and Users' Rights (2009) contains several provisions aimed to secure the interests and rights of end-users beyond their access to the services falling under the scope of universal service.

These provisions are of various types: on the one hand, they evolve around the principle of providing end-users with information on the applicable prices and tariffs, standard terms and conditions and the quality of the publicly available communications services. On the other, it set the conditions applicable to the contracts conditions. Finally, it

establishes the obligation for EU Member States to ensure transparent, non-discriminatory, simple and inexpensive out-of-court procedures available for dealing with unresolved disputes.

EMERG members have included a concise questionnaire tackling issues related to the legislative framework regarding consumer protection as well as specific questions to understand better the specificities in each country related to the empowerment of NRA's in that regard, the publication of tariffs and the minimum contract period.

The findings can be summarized as below:

- In France and Morocco, the general consumer protection law includes a specific mention related to telecommunications end users.
- In other EU member countries as well as in some of non-EU member countries such as Lebanon, Jordan and Turkey a specific legislation to protect telecommunications end users has been adopted and is in force.
- In Israel, Palestine and Tunisia, there are no legislation adopted regarding the protection of consumers for telecommunications services.

The Table 33 highlights the main issues dealt with in the consumer protection regulation.

Table 33. Consumer protection in EMERG countries

	Contract conditions	Contract duration	Penalty payments	Data protection	Procedure for handling complaints
Austria	X	X			X
Croatia	X	X	X	X	X
Cyprus	X	X	X	X	X
France	X	X	X		
Germany	X	X		X	X
Greece	X	X	X		X
Italy		X	X	X	X
Jordan	X	X	X	X	X
Lebanon	X	X	X	X	X
Malta	X	X	X	X	X
Morocco	X	X	X		
Portugal	X	X	X	X	X
Spain	X	X	X	X	X
Switzerland	X			X	X
Tunisia	X	X	X	X	X
Turkey	X	X	X	X	X

All EMERG NRAs, except in the case of France and Spain, are empowered to handle consumers' complaints. Morocco specified that ANRT is empowered to receive complaints from other consumers' associations, however they intervene only within their competent authorities.

In all EMERG countries, except in Germany, Switzerland and Austria, operators are obliged to publish the tariffs of all services on their websites.

In Portugal, Lebanon, Malta, Greece, Cyprus and Italy, NRAs publish periodically information on tariffs of telecommunications services on their website in order to allow end users to compare offers in a transparent manner. In some cases, such as for ANACOM for example, the NRA is only responsible of the platform used as a comparison tool; service providers are responsible for information provisioning. On the other hand, Tunisia and Croatia are currently working on the development of such comparison tool. In the case of Switzerland, BAKOM is not legally empowered nor has the appropriate resources to set up any comparison tool for telecommunications services; some transparency and comparison tools are offered by private initiatives.

In Switzerland, Lebanon, Austria, Palestine, Turkey and Spain, NRAs do not set a maximum initial duration of contract. It is to be noted that in the case of Spain, CNMC is not competent with regard to end user issues, it is rather under the responsibility of the Ministry of Industry, Energy and Tourism. In the case of Austria, the maximum period is not set by the NRA however there is a general understanding due to a court verdict that 24 months is indeed the maximum initial duration for a contract.

In the case of Israel, consumers may switch at any time without penalty. Contracts are now barred.

In Portugal, and according to the Electronic Communications Law, contracts concluded between consumers and undertakings providing electronic communications services shall not mandate an initial commitment period that exceeds 24 months. Service Providers shall also offer all users the possibility to subscribe to a contract with a maximum duration of 12 months. Also, Service Providers are not allowed to impose disproportionate conditions or procedures for contract termination.

In France, a maximum initial duration of the contract that does not exceed 24 months is imposed on service providers. In this purpose, ARCEP works jointly with the Ministry in charge of consumer protection and the Ministry in charge of electronic communications. It publishes recommendations to:

- Ensure an effective competition for consumer benefits.

- Ensure high level consumer protection, in particular: consumer information, tariffs and uses conditions transparency for electronic communication services.
- Fix minimum quality of service expectations.
- Ensure that the minimum legal information required by the Consumption Code a
- is duly stipulated in the contracts signed by consumers.

In Morocco, a maximum initial period of 24 months is applied only on mobile service subscriptions.

In Malta, a maximum initial duration of the contract that does not exceed 24 months is imposed on service providers. In 2012, MCA has published a decision aiming at providing a set of end user protection measures to safeguard their rights among which the contract duration.

3.3.1.2. Quality of service

Article 22 of the EU Directive on Universal Service and User's Rights empowers NRAs to set the minimum requirements in terms of quality of service in order to prevent the deterioration of the service and the obstruction or slowing down of traffic on the networks. The Directive also establishes the information on the quality of services that undertakings should make publicly accessible in order to ensure that end-users, including disabled end-users have access to comprehensive, comparable, reliable and user-friendly information.

EMERG members have included a concise questionnaire tackling issues related to the legislative framework regarding quality of service.

As for the legislative or regulatory framework, the findings can be summarized as below:

- All EMERG countries, except France (it is part of Consumers Law) and Israel, have adopted a specific legislation to ensure quality of service in telecommunication services and networks.
- In Morocco, two approaches are used to monitor quality of service: (1) an analysis dashboard KPIs (Key Performance Indicators) or those submitted upon ANRT's request during significant or unusual events; (2) campaigns field measurements for evaluating the quality of service as perceived by users. Thus,

the ANRT conducts regularly on the basis of significant samples, measurement campaigns and survey indicators QoS. In order to ensure the representativeness of measurements and relevance of the results, each campaign is conducted on the basis of a significant sample (number of measurements, cities, services ...). The measurements are performed in an intuitive and random manner as per a procedure by the ANRT to ensure an assessment of the quality of service as actually perceived by the users.

- In Switzerland, there is a specific legislation for services and network connections in relation to Universal Service Obligations. These rules apply only on universal service providers.
- In Lebanon, a specific regulation has been issued for the monitoring of quality of service on all service providers (fixed, mobile, broadband, etc...). Key Performance Indicators were defined for each type of service with a specific target to be reached. The monitoring is to be done by an independent system as the TRA premises that can assess the quality based on formulas defined by the TRA experts and raw data submitted by service providers.
- In Croatia, operators with an income exceeding 2% of total revenues on the relevant market of electronic communications services or operators requested to do so by the Agency, must, at their own cost at least every six months, or, exceptionally, earlier, upon the Agency's request, measure the quality of services.

Table 34. Quality of service in EMERG countries

	Legacy operator	Incumbent/ SMP operator	Mobile operators	US operator	All operator
Austria				X	
Croatia					X
Cyprus					X ⁽²⁾
France					X
Germany					
Greece			X	X	
Israel					X
Italy					X
Jordan					X
Lebanon					X
Malta					X ⁽¹⁾
Morocco	X	X	X	X	
Palestine	X	X	X		
Portugal			X	X	
Spain					
Switzerland				X	
Tunisia					
Turkey	X	X		X	

(1) Fixed and broadband providers.

- (2) In Cyprus, current legislation establishes QoS indicators regarding fixed and mobile telephony services. OCECPR is in the process of establishing QoS indicators for fixed broadband.

In all EMERG countries, except for Germany, Malta and Croatia, the regulation related to Quality of Service (QoS) defines penalties in case of non-compliance with the standards. In the case of France, although there is no specific legislation, this is part of operators' obligations and ARCEP publishes periodical benchmarks presenting a wide range of indicators to check that operators respect their obligations and give back information to consumers. For Switzerland, penalties are defined in the legislation, however it is only in theory and it is not applied.

All EMERG countries, except for Germany, Austria and Malta, review periodically the Quality of Service parameters.

Some more specifications related to QoS in EMERG countries:

- In Malta, in February 2013, the MCA published a decision which obliged all fixed broadband ISPs to collect and measure a set of QoS parameters as specified in the Decision. The Decision also established a number of parameters which would render measurements from different ISPs to be comparable. ISPs have so far collected and presented reports to the Authority. It is envisaged that later next year, ISPs would be obliged to publish the information in line with a format established by the authority. The Decision does not state any minimum QoS performance which an ISPs has to achieve.
- In Palestine, all licensees must deposit a performance bond equal to 3% of their paid up capital as a guarantee for achieving quality of service obligations.
- In Portugal, according to the Electronic Communications, undertakings that provide publicly available electronic communications services shall publish comparable, adequate and up-to-date information for end-users on the quality of their services. Also according to the same article, for this purpose it is upon the NRA, following a general consultation procedure, to specify the quality of service parameters to be measured, and the content, form and manner of information to be published. In this context, ICP-ANACOM published a Regulation of Quality of Service applicable to the services of access to the public telephone network at a fixed location and the publicly available telephone service at a fixed location. This Regulation defines a set of parameters to be measured by all fixed telephone service providers, as well as the contents of such parameters and the formats

and manner of information to be published, in order to ensure that the information disclosed to the end-users is clear, up-to-date and comparable.

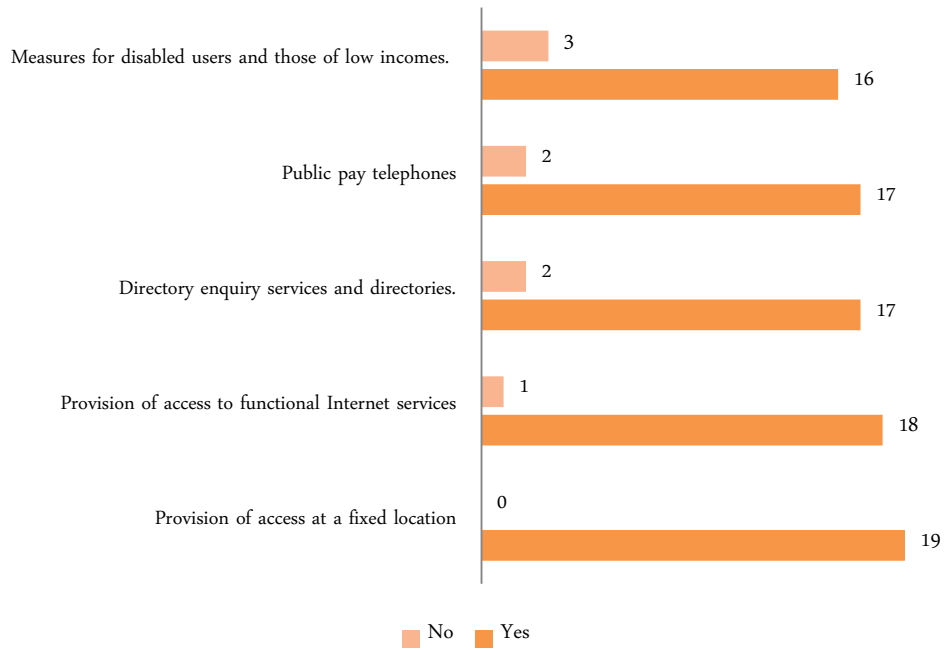
Specific requirements are also set for undertaking providing Internet access services regarding issues such as the upload and download speeds, the maximum access speed provided and the average access speed estimated by the provider, and the provision of clear and accurate information on migration between offers, specifically to meet a customer request to change its maximum speed.

3.3.1.3. Universal service

Increasing reach of people to different types of communication tools, has been imposed on certain service providers by the universal service obligation. By the years the level of achieving this obligation has increased in different ways, one of which is through expansion of coverage areas of telecom networks, also, the fact that new methods of reach have been proposed (such as high-speed broadband) and even applied in some countries.

In 2014, the progress in provision of universal services has marked several signs, first of which, the type of services under the obligation now covers five types of telecommunication services (see Chart 35 below).

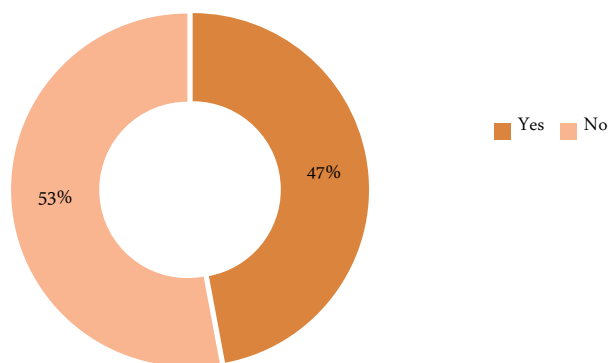
Chart 35. Services included in universal service obligation



Source: EMERG

Secondly, the evolution can be seen in implementing the fund to cover the costs of this special type of obliged services, which can be noted in chart below.

Chart 36. Is the universal service in your country financed by a fund?



Source: EMERG

Thirdly, in 2014 it is seen that 72% of the regulatory authorities/bodies have designated one or more operator/s to bear the universal service obligations remit. While 61% of those authorities/bodies implemented and managed the funding mechanism of universal services. On the other hand, 83% of them calculated the net cost of universal service provision throughout their countries, and 83% supervised the details of obligations in terms of rates, quality of service, etc.

- **Principle and scope of universal service**

The Table 37 shows a comparison of how some of the NRAs/Governments chose to regulate the universal service obligations, ranging years of designation between 1 and 10 years, and varying mechanisms of financing the US provision; from total government dependent to total operator dependent.

Noting that the number of designated operators (in each country) can be an indicator to the increase of competition in provision of basic telecommunication services which led to choosing more than one operator to provide these services in some states.

Table 37. Overview of the universal service's scope in EMERG countries

	Designation	Years of designation	Cost of Universal Service
Austria	1 operator	5 years	Agreement between the operators without NRA intervention
Croatia	2 operators	5 years	-
Cyprus	1 operator	4 years	-
France	2 operators	4 years (component 1 ¹) 3 years (component 2 ² and 3 ³)	-
Greece	1 operator (currently under review to assign more than one undertaking)	Minimum 3 years	Auction
Israel	2 operators	-	-
Jordan	1 operator	Until determined that effective competition has begun to the fixed line incumbent	Designated operator bears the entire cost of the USO. USP shall be permitted to recover from such customer the full incremental cost of connection over and above the average cost of connection of the USP if and to the extent such cost exceeds the USP's average cost of 50 man hours work plus 500 JD.
Morocco	Committee of management of the Universal Service Telecommunications (CGSUT)	-	Universal Service Fund: contributions from telecom operators up to 2% of their turnover, and, donations and bequests allocated in the development programs of Universal Telecommunications Service
Portugal	3 operators	5 years 1 year (for comprehensive directory)	3 public tenders for: Connection at a fixed location to the public telephone network. Provision of public payphones Provision of comprehensive directory and of a comprehensive telephone directory enquiry service
Switzerland	1 (51.22% government share)	10 years	-

¹ Component 1: A connection and telephone service: connection to the fixed public telephone network and the provision of a certain quality of service (at a reasonable speed for internet access in particular). The designated operator is required to offer telephone services at a « geographically balanced » price nationwide. Following the reviewed European framework, the two sub-components – "connection" and "service" – can be provided by two different operators.

² Component 2: A printed universal directory made available for free to all those who subscribe to a public telephone service, fixed or mobile. The provision is nationwide.

³ Component 3: The public payphone service until last February 2014, which covers the installation and maintenance of public payphones (at least one public payphone in each municipality, and two in those with a population of more than 1,000) in the public thoroughfare, and the provision of a quality and reasonably-priced telephone service over these payphones.

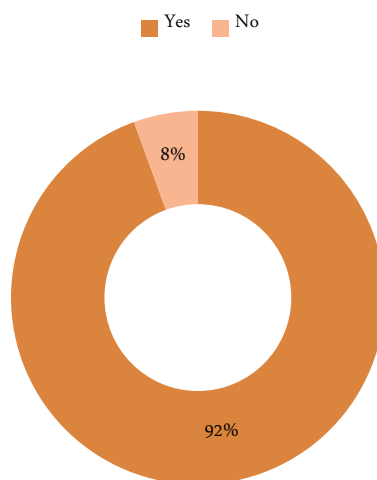
As for the inclusion of access to functional Internet services, 17 out of 18 EMERG countries have already included it under the umbrella of the universal service obligation, with the exception of Lebanon. Turkey did not provide information on that issue.

The inclusion of broadband in the universal service obligations bundle has come into effect voluntarily, and it started by single state initiatives worldwide. A good response to the digital divide need is presented in the high percentage of NRAs/Governments who have placed plans to guarantee the access of all citizens to broadband services (see Chart 38).

Spain is the only country which has already implemented the broadband access and data communications broadband downstream speed of 1 Mbit per second, as an obligation for the USO provider.

Chart 38. EMERG countries planning to include broadband services under the scope of universal service

(% of NRAs)



Source: EMERG

3.3.1.4. Switching and number portability (NP)

Number portability is considered a key driver of a competitive telecommunications environment as it is one of the essential elements for the competitive smoothness of the market. The portability is indeed a commercial necessity for every new entrant allowing him to conquer customers, and especially when the market is relatively developed, in other word when it's a market of "churn" where the customer wants to leave his operator to take advantage of an offer of another operator better meeting his needs.

In the European Union, the Universal Service Directive 2009/136/EC ensures that consumers can change, in 1 working day, their fixed or mobile operator while retaining their number.

Article 30 of the Directive requires operators to:

- set a maximum time limit of one working day from the moment of concluding an operator change agreement to the moment when the number is activated with another operator;
- not exceed one working day's loss of service during the process of changing operator;
- carry out the overall process within the shortest time possible.

The Directive empowers the NRAs to ensure respect of these rules and to impose appropriate sanctions on providers in case of delay or abuse in porting.

National Regulatory Authorities of the 19 EMERG countries responding the questionnaire have in charge the regulation of number portability. The role of NRA is mainly justified by the public interest and safeguarding competition in the market: the impact of NP on consumer is really significant and in order to avoid any anticompetitive practices from operator to retain, for example, abusively customers or to put obstacles in the NP Process.

So the NRAs intervene notably in term of establishing conditions of NP process, setting the rules to be respected regarding consumer information and clarifying the obligations of concerned parties.

In some cases, NRA's have in charge to manage the central database of ported numbers, it's the case for instance of Croatia where all operators offering number portability have to join Central Administrative Database of Ported Numbers (CADPN) located in HAKOM (NRA) premises and HAKOM is responsible for installation, developing, testing, maintaining and managing the CADPN.

The regulation of NP is set either in the law or in specific decisions. The issue of information of customer is highly important, in the sense that customers should be informed about the terms and conditions of the porting, the costs and the loss of their old contractual benefits.

The lever of number portability is a competitive incentive for players in the market as it pushes operators to innovate in their services, to make bundle offers and lower prices in order to retain their initial customers and to attract customers of competitors. In France, the highest point of ported number occurred with the launch of free mobile services in January 2012, because of lower prices offered by the new entrant.

In Switzerland, consumers will to switch operator decreased in 2013 – for mobile (from 276'247 in 2012 to 187'160 in 2013) as well as for fixed (82'846 to 66'917) numbers. This is due to the fact that especially mobile operators have been successful to bundle services including unlimited traffic (calls and data) and to retain their clients.

Regarding the responses received, we can state that number portability is still a challenge for non EU countries, where in some cases, NP is not implemented yet. There is also some improvement to be taken into account, for those implementing NP, like the use central database solution, the decrease of time limits within the porting process, and the modification of the classical system of telecommunications (NGN, IP based services etc).

- **Context of number portability**

Countries which still did not introduce number portability in fixed and mobile services are Jordan, Lebanon, Palestine and Tunisia. However, Palestine and Tunisia are planning to introduce number portability for the period 2014/2015, for Jordan the introduction of number portability could be possible on 2015.

Apart from these exceptions, a large majority of EMERG countries implemented number portability both for mobile and fixed services: Austria, Croatia, Cyprus, France, Germany, Greece, Israel, Italy, Malta, Morocco, Portugal, Spain, Switzerland and Turkey.

The process of switching provider in 1 working day is available in 8 out of 19 EMERG countries: Austria, Israel, Portugal, Italy, Greece, Malta, Spain and Turkey. In the other cases the process of switching varies from 3 to 6 days.

The date of implementation of NP differs from country to country and we can state that the first countries introducing NP notably in fixed service are Germany and France on

1998. The Table 39 provides an idea about the implementation date of NP in EMERG countries.

Table 39. Overview of the date of implementation of number portability

	Fixed Number Portability	Mobile Number Portability
Austria	2000	2004
Cyprus	2004	2004
Greece	2003	2004
Croatia	2005	2006
Malta	2006	2005
Egypt	Not implemented	2008
France	1998	2003
Germany	1998	2002
Israel	December 2007	December 2007
Italy	2000	2002
Morocco	2007	2007
Portugal	2001	2002
Spain	2000	December 2000
Switzerland	2001	2001
Turkey	10 September 2009	9 November 2008

The Table 40 below provides an overview of the state of implementation of the fixed and mobile portability in EMERG countries.

3.4. Promotion of broadband services

The EU Digital Agenda, a 10 year strategy, has targeted year 2020 to speed up the roll-out of high-speed internet for Europe. The EU states have varied in achieving the goals of Digital Agenda, some have placed plans and are constructing the means by which they can achieve them. While others have actually achieved a remarkable progress in this regard; i.e. 100% of Portugal is now covered by basic broadband at a speed of 30 Mbps, and their plan targets extension of the mobile broadband and rolling out access to broadband for at least half of the population in rural areas, bidding five tenders for each region for the deployment of NGA networks in rural areas.

On the other hand, France has launched a plan in 2013 aiming to get the full coverage by 2022. The project is financed by the state, local entities and operators. The plan supported hertzian technologies to accelerate broadband access in rural areas, thus; three types of mobile networks are involved: new generation satellites, new hertzian terrestrial technologies (WiMAX and Wifi) and LTE technologies (4G for fixed usage in particular).

Malta has prepared a strategy for 7 years (2014 – 2020). “In a few words, it is a vision for “a digitally-enabled country empowering its people, communities and entrepreneurs through the intelligent and universal use of ICT...”⁶.

As for MENA countries, Jordan, in its Government policy year 2012 has set out an obligation on the regulator (TRC) to consider deployment of high speed internet (i.e. Broadband services), since it is a national goal: to increase the penetration of broadband access, being fast, reliable and affordable for all users, and availability to be through wired and wireless technologies, particularly mobile access.

⁶ <https://digitalmalta.gov.mt/en/Pages/Content/WhatsDM.aspx>

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4. REGULATORY FICHES

4.1. AUSTRIA - RTR

1. INSTITUTIONAL LAYOUT

RTR is the sole and independent National Regulatory Authority with competences on economic regulation of electronic communication, broadcasting and postal sectors, referring to the Telecommunications Act.

The chairman of the Authority (whose term is for 5 renewable years) is appointed by Act of the Minister of Transport, Innovation and Technology. Grounds of dismissal include serious violation of his/her duties or incapability. All Board members (3 members + 3 replacement members) work as a collegiate body.

RTR has 120 employees and its budget (autonomously defined and implemented) for 2014 was 8,6 million € coming 75% from regulated undertakings (administrative charges) and the remaining 25% from Public sources.

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications, Broadcasting and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Allocation of spectrum
- Quality of service

When it comes to RTR powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has RTR the power to request information from operators but also it can impose both behavioural and structural

remedies (coming from EU-Directives 2009).

An advisory role can be carried out and per request of the parliament advice will be given, but not foreseen automatically

Additionally, some of RTR's decisions are directly enforceable.

RTR cannot impose fines and penalties and judicial appeals with full review of decisions are possible - Notification of violation to the telecommunications office. Fines will be imposed by Telecommunication office. Also there is the possibility to inform the Cartel court and to request to skim off the gains-.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. An Activity report is issued every year to the parliament listing all activities of the NRA, but there is no direct accountability foreseen in the law.

The NRA including its decision making chambers (TKK, PCK, KOA) take all the regulatory decisions. The Ministry of Transport, Innovation and Technology, is responsible for the technical standards and harmonization as well as for the frequency coordination. The frequency assignment is done by the NRA.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

Notifications

In case of offering public telecommunication network services, a written information on intended service including name and address of provider, intended starting date and short technical description of service shall be given.

6. Rights of way, radio spectrum and Frequency management

RTR is empowered to grant rights of way and the approval of Government is necessary to grant licenses. Additionally, NRA is not the authority for frequency management, but secondary trading of spectrum is allowed in Austria as it is refarming migration. Austria has taken a decision on the digital dividend and the 800 MHz band has been allocated to deliver 4G services (<https://www.rtr.at/en/tk/multibandauktion>).

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Austria identifies relevant markets but it does not apply competition law principles since it applies relevant markets defined by European Commission. RTR also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds, every 3 years.

9. Regulatory remedies for RTR

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	-	x
Cost accounting	x	x	-	-
Transparency	x (reference offer)	x (reference offer)	-	-
Price control	x	x	-	x
Tariff rebalancing	-	-	-	-

Retail price cap control	-	-	-	x
Regulation of retail tariffs	-	-	-	x
Obligation of interconnection	x	x	-	-
Implementation of wholesale offers	x	x	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	x	-
Cost accounting	-	x	-
Transparency	-	x (reference offer)	-
Price control	-	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	-	x	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ⁷)	Broadband access (market 5 of the EC Recommendation ⁸)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x (reference offer)	x (reference offer)	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	x	-	-
Sharing civil infrastructure	x	-	-	-
Wholesale offer for ducts	x	-	-	-

⁷ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

⁸ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Bitstream wholesale offer	-	x	-	-
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10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Public pay telephones.
- Directory enquiry services and directories.
- Measures for disabled users and those of low incomes.

Universal Service in Austria is fund by an agreement on financing achieved between operators.

RTR is competent in the following areas

- Calculating the net cost of universal service provision.
- Implementation and management of the funding mechanism of universal service.

- Designation of the operator or operators with universal service obligations.

Telekom Austria provides the Universal Service for 5 years on an agreed basis according to the rules. About financing an agreement has been achieved between the operators without NRA intervention.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Austria, specific legislation for consumer protection for Electronic communication services has been applied. In that sense, it deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Procedure for handling complaints by consumers.

Additionally, RTR is empowered to handle consumers' complaints even though regulation does not set a maximum initial duration of contract. It is important to highlight that maximum period is not set by the NRA, however there is general understanding because of a court verdict, that 24 months is the maximum duration period.

14. Quality of service (QoS) and switching

In Austria, only parameters for the USO require a certain degree of quality of service. Regulation established penalties for non-compliance with QoS standards. Parameters for USO are set and enforced by the Ministry of transport, innovation and technology.

Regarding switching, RTR is responsible for fixed and mobile portability. Before a porting is done the customer has to be informed about the terms and conditions of the porting, the costs and the loss of his old contractual benefits. In case of a contractual binding time the contract will stay in force and the customer has to pay his obligations arising from this contract. Porting is possible at any time, however the running contracts will stay in force.

15. INTERNATIONAL ROAMING

In Austria, international Roaming is regulated by EU-Guidelines.

16. PROMOTION OF BROADBAND

Austria has adopted measures to deploy NGA networks and it has also created plan/regulation to guarantee the access of all the citizens to broadband services.

4.2. CROATIA - HAKOM

1. INSTITUTIONAL LAYOUT

HAKOM is the independent National Regulatory Authority with competences on competition and regulation of electronic communication, postal and railway sectors, referring to Electronic Communications Act.

The Chairman of the Agency's Council is appointed and dismissed by the Croatian Parliament upon proposal of the Government of the Republic of Croatia. In the procedure for the proposal of the Chairman of the Agency's Council the Government of the Republic of Croatia publishes a public invitation to propose candidates for members of the Agency's Council. To be appointed as Chairman of the Agency's Council a person must be Croatian citizen domiciled in the Republic of Croatia with completed graduate studies or specialized graduate studies in electronic communications, postal services, law, economics or railway services, adequate work experience and active knowledge of at least one foreign language (English, French or German). At least one member of the Agency's Council must have a completed a graduate course or a specialized graduate course in the field of electronic communications, postal services or railway services, law and economics. The Chairman of the Agency's Council must have at least five years of work experience in the electronic communications sector or postal services sector.

Chairman's term is for five years as does it so for the five members of the Board. Additionally, the appointment of the Chairman of the Agency's Council can be renewed and there is no limitation of this right in terms of mandates.

The Croatian Parliament shall dismiss the Chairman of the Agency's Council before the expiry of his term of office, upon proposal of the Government of the Republic of Croatia, in the following cases:

upon his/her request;

if it is established that, when he/she was proposed to become a member of the Agency's Council, he/she gave false information or failed to give information about circumstances important for his/her appointment;

if his/her work or behavior questions his/her reputation or reputation of the Agency, or his/her independence or independence of the Agency

inability to properly carry out his/her duty for more than six months in the row;

permanent loss of ability to perform his/her duty;
 final conviction of a criminal offence;
 non-fulfilment of objectives and tasks defined in the Agency's annual work program
 occurrence of circumstances regarding conflict of interest

HAKOM has 179 employees and its budget (autonomously defined and implemented) for 2014 was 82.850.000 HRK (10.872.703 EUR) coming from the following resources:

Regulated undertakings (e.g. administrative charges) 44%
 Fees for spectrum and/or rights or use 53%
 Others (interests, refunds): 3%

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications, Post and Railway sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Networks' security
- Allocation of spectrum
- Quality of service
- Consumers' protection
- Privacy and data protection (shared competence with Data Protection Agency)

When it comes to HAKOM powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has NRA the power to request information from operators but also can it impose both behavioural and structural

remedies to achieve effective competition.

Regulatory measures that can be imposed are as follows:

Transparency in relation to interconnection and/or access.

Non-discrimination in relation to interconnection and/or access.

Accounting separation of certain activities related to interconnection and/or network access.

Obligations to meet reasonable requirements for access to and use of specific network elements and the associated infrastructure and associated facilities.

Obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and/or access.

Regulatory control on retail services.

Accounting separation and financial reports.

Access and interconnection.

Functional separation of vertically integrated operators.

Voluntary separation of vertically integrated operators.

Functional separation of vertically integrated operators can be imposed, on an exceptional basis, if all other regulatory measures did not achieve sustainable competition and if there are crucial and permanent difficulties in competition.

NRA can impose fines and penalties and judicial appeals with full review of decisions are possible. Additionally, HAKOM decisions are directly enforceable.

The provisions of the General Administrative Procedure Act are applied in administrative proceedings under the competence of the Agency to issues not regulated by this Act.

The Agency's Council adopts decisions by a majority vote of all members of the Agency's Council.

Decisions and other administrative acts of the Agency are final in the administrative procedure and may not be appealed, but administrative proceedings may be initiated before the High Administrative Court of the Republic of Croatia. Exceptionally, administrative proceedings against the Agency's Council decisions in disputes between end users and operators may be initiated before the Administrative Court of the Republic of Croatia, in accordance with the provisions regarding territorial jurisdiction.

A decision or another administrative act of the Agency is enforced after service to the party unless another deadline for enforcement has been determined by a decision or another administrative act.

In case of failure to act upon the decision or another administrative act of the Agency an electronic communications inspector may issue a misdemeanor order or propose the filing of a motion to initiate misdemeanor proceedings.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable before Parliament.

Regulatory functions regarding electronic communications, postal services (since 2008.) and railway services (since 2014.) are under the competence of Croatian Regulatory Authority for Network Industries (HAKOM).

The application of provisions of Electronic Communications Act does not influence the scope and competence of the competition protection authority established in accordance with a special law, as well as consumer rights, which are regulated by a special law. Furthermore, the provisions of this Act do not apply to contents produced, conveyed or published by means of providing electronic communications networks and services.

In the implementation of the provisions of this Act the Agency shall, in particular, cooperate with the following bodies:

- the competition protection authority in such a manner that it requests the opinion of this authority or proposes the institution of proceedings before this authority in all cases of prevention, restriction or distortion of competition, in accordance with a special law regulating competition protection
- the consumer protection authority, in accordance with a special law regulating consumer protection;
- the authority competent for electronic media, in accordance with this Act and a special law regulating electronic media;
- the authority competent for data protection, in accordance with this Act and a special law regulating data protection
- the authority competent for harmonizing prevention and protection from computer

endangerment to information system security, in accordance with special law regulating information security and ENISA guidelines

- the national security authority in accordance with special law regulating that area.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

Notifications

Any natural person or legal entity shall be entitled to install, use and make available an electronic communications network and provide electronic communications services in the territory of the Republic of Croatia without obtaining a special authorization (general authorization) under the conditions laid down in Electronic Communications Act (Official Gazette, No. 73/2008, 90/2011, 133/2012, 80/2013 and 71/2014) and in the Ordinance on the manner and conditions for provision of electronic communications networks and services (Official Gazette, No. 154/2011, 149/2013 and 82/2014). There are no legal restrictions deriving from the Act that apply specifically to foreign entrants (EU). Foreign companies must obtain a VAT ID number from Tax Administration of the Republic of Croatia (see info: <http://www.porezna-uprava.hr/en/Pages/Vat-for-foreign-persons.aspx>).

HAKOM would prefer for that notification to be made via e-Operator web application (<http://www.hakom.hr/default.aspx?id=815>).

According to Article 24. of "Ordinance on the payment of the fees for carrying out of tasks of the Croatian Post and Electronic Communications Agency" (Official Gazette, No. 160/2013), expressed as the percentage of the total annual gross revenue earned by operators in the provision of electronic communications networks and services on the market in the previous calendar year amounts to 0.20 % of total annual gross revenue. The operator shall submit the report on the total annual gross revenue for the previous calendar year to the Agency by the end of March of the current year. Only those operators that earned more than HRK 1 million in annual gross revenue in the past calendar year are obliged to pay the fee.

Operators of public communications networks and publicly available electronic communications services must ensure, at their own expense, and organise the function of secret surveillance of electronic communications networks and services, as well as

electronic communications lines to the operational and technical body competent for the surveillance of electronic communications in accordance with a special law regulating the field of national security.

The obligations of operators of public communications networks and publicly available electronic communications services towards the competent body and towards bodies authorised to apply measures of secret surveillance of communications networks and services, in accordance with special laws in the field of national security and criminal procedure, shall be laid down in these laws and in a special legislation regulating the obligations of operators in the field of national security.

6. Rights of way, radio spectrum and Frequency management

HAKOM is empowered to grant rights of way and the approval of Government is not necessary to grant licenses. Additionally, NRA is the authority for frequency management, and both secondary trading and refarming migration of spectrum is allowed in Croatia.

Croatia has taken a decision on the digital dividend. In 2010 the switchover to digital terrestrial television was finished. In 2012 and 2013 2x30 MHz was assigned to mobile operators and is now in commercial operation.

For bands that are allocated for public mobile service there is a possibility of public call, tender or auction. HAKOM makes the decision in specific case. Public call is intended for bands that are foreseen as sufficient to cover market interest. If additional interest is shown, tender or auction must be conducted.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Croatia identifies relevant markets and it does not apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds. The normal market analysis cycle is 3 years.

HAKOM is obliged by Electronic Communications ACT to conduct market analysis every

3 years, which is also in accordance with Framework Directive.

9. Regulatory remedies

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	x
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	x	x	-	-
Implementation of wholesale offers	x	x	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	x	-
Cost accounting	-	x	-
Transparency	-	-	-
Price control	-	-	-
Tariff rebalancing	-	-	-
Retail price cap control	-	x	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	-	-	-
Access to Mobile Virtual Operators (MVNOs)	-	x	-
Collocation facilities	-	x	-
Implementation of wholesale offers	-	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ⁹)	Broadband access (market 5 of the EC Recommendation ¹⁰)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	x	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	-	-	-

⁹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

¹⁰ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers, addresses and names.

Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

Provision of access at a fixed location.

Provision of access to functional Internet services.

Public pay telephones.

Directory enquiry services and directories.

Measures for disabled users and those of low incomes.

Universal Service in Croatia is not fund by an agreement on financing achieved between operators.

MCCAA is competent in the following areas

Designation of the operator or operators with universal service obligations.

- Calculating the net cost of universal service provision.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.
- Designation of the operator or operators with universal service obligations.

HAKOM designated two providers (in brackets) in 2010 for a 5-year period for the following services:

access to public telephone network and publicly available telephone services at a fixed location allowing end-users to make and receive local, national and international telephone calls, facsimile communications and data communications at data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers, as well as their technological feasibility;

access of end-users to at least one comprehensive directory of all subscribers of publicly available telephone services, in a form approved by the NRA, whether printed or electronic, which must be updated on a regular basis;

access of end-users, including users of public pay telephones, to a telephone directory enquiry service;

installation of public pay telephones at public and always accessible places in accordance with reasonable needs of end-users in terms of the geographical coverage, disabled users;

special measures for disabled users including access to emergency services, directory enquiry services and directories, equivalent to that enjoyed by other end-users, and an adequate choice of operators available to the majority of end-users;

special tariff systems adjusted to the groups of end-users with special social needs.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Croatia, specific legislation for consumer protection for Electronic communication services has been applied. In that sense, it deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Procedure for handling complaints by consumers.
- Data protection.

Additionally, HAKOM is empowered to handle consumers' complaints and regulation sets a maximum initial duration of contract, but this might be longer than 24 months. Croatian set of legislation regulating consumer protection and electronic communications is fully in line with the EU.

HAKOM is in process of providing comparison tool to end users regarding tariffs of telecommunication services.

14. Quality of service (QoS) and switching

In Croatia, quality of service on telecommunication services and networks are defined in the Ordinance on the Manner and Conditions for Provision of Electronic Communications Networks and Services (Official Gazette, 154/2011, 149/2013 and 82/2014).

According to the Ordinance on the Manner and Conditions for Provision of Electronic Communications Networks and Services (Official Gazette, 154/2011, 149/2013 and 82/2014), Operators whose income exceeds 2% of total revenue on the relevant market of electronic communications services or who are requested to do so by the Agency, must, at their own cost at least every six (6) months, or, exceptionally, earlier, upon the Agency's request, measure the quality of services.

Regarding switching, HAKOM is responsible for fixed and mobile portability.

Number Portability in Croatia is regulated by law - Article 76, paragraph 6 of the Electronic Communications Act (Official Gazette No. 73/08, 90/11, 133/12, 80/13 and 71/14.), and on Ordinance on number portability (Official Gazette no. 100/12).

All operators offering number portability have to join Central Administrative Database of Ported Numbers (CADPN). CADPN's location is in HAKOM (NRA) premises and HAKOM

is responsible for installation, developing, testing, maintaining and managing the CADPN.

15. INTERNATIONAL ROAMING

In Croatia, international Roaming is regulated by EU-Guidelines (EEA area, by Roaming Regulation (531/2012)) in the following areas:

- X Wholesale voice calls
- X Wholesale SMS
- X Wholesale data
- X Retail voice calls
- X Retail SMS
- X Retail data

16. PROMOTION OF BROADBAND

A number of measures have been taken to ensure deployment of NGA in Croatia.

Coordination of planning and cost reductions measures:

Regulation regarding measures for development of electronic communications infrastructure and other associated facilities (OG 131/2012). Regulation already anticipated main measures stipulated in new Directive 2014/61 EU of May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks.

Rules for sharing physical infrastructure:

Ordinance on manner and conditions for access to and shared use of electronic communications infrastructure and other associated facilities (OG 136/11, 44/12 and 75/13).

Ordinance of Optical Fiber Distribution Network (OG 57/14).

Ordinance of technical requirements for cable ducts (OG NN 114/10, NN 29/13).

These ordinances aim to facilitate and incentivize the roll-out of high-speed electronic

communications networks by promoting the joint use of existing physical infrastructure and by enabling a more efficient deployment of new physical infrastructure. Ordinances also setting up detailed measures regarding transparency concerning physical infrastructure as well as measures concerning planned civil works.

In-house equipment:

Ordinance on technical requirements for electronic communication network in office and residential buildings (OG 155/09). This Ordinance shall be applied when planning, designing, construction, reconstruction, upgrades, maintenance and use of electronic communications networks office buildings, residential buildings and commercial and residential buildings, with associated electronic communications infrastructure and associated facilities and ducts for access lines in such buildings.

Through USO obligation, minimum internet speed is defined at 1 Mbps as of 1st of January 2015.

4.3. CYPRUS – OECPR

1. INSTITUTIONAL LAYOUT

OECPR is the independent National Regulatory Authority with competences on Telecommunications, Broadcasting –TV Transmission-, Postal sector, and Cybersecurity,. The NRA is NOT competent in the fields of Spectrum Management and Data Protection. The Ministry has no power to give instructions to the NRA for the exercise of the tasks assigned to the NRA.

OECPR Commissioner is appointed for six years and the term can be renewed only once. The Commissioner is to be selected with 2 main criteria:

1. Well known professional in the fields of Telecoms/Law/IT/Economics/Engineering.
2. No affiliation to a political party.

Grounds of dismissal are:

Inability to carry out duties due to illness

Gross misconduct.

OECPR does not act as a collegiate body and it currently has 40 employees.

NRA budget is not autonomously defined (approval by Council of Ministers and Parliament is needed) but it is independently implemented. For 2014 was €4.5 Million coming from Regulated undertakings (e.g. annual administrative charges).

2. NRAs COMPETENCES AND POWERS

It has competence on Telecommunications, Broadcasting – TV Transmission-, Postal sectors, and Cybersecurity.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations

- Resolution of disputes
- Numbering
- Standardization of equipment
- Quality of service
- Consumers' protection
- Networks' security

When it comes to OCECPR powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. However, the Ministry formulates and publishes the policy in the sector.

The NRA has the power to request information from operators.

The main remedies that can be imposed by OCECPR are all kinds of remedies within the European Regulatory Framework.

NRA's decisions are directly enforceable and judicial appeals with full review of decisions are possible at the Supreme Court. Dispute settlement body is not a separate body from NRA.

Fines and penalties are imposed by OCECPR. According to Article 42 of the Law, where the Commissioner has sufficient evidence to indicate that an undertaking may not comply with the legislation or the conditions of the general authorization governing the undertaking's activity in the sector, he invites that undertaking to a hearing where the undertaking states its views. After a hearing proceeding, the Commissioner may impose a proportionate administrative fee. Where the Commissioner has evidence of serious and repeated breaches, he may prevent the undertaking from providing its services by revoking the undertaking's general authorization.

NRA can submit proposals for sectorial legislative amendments to the Parliament, as it also has an advisory role to the Ministry.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does it for decisions to be published.

OCECPR is accountable before Parliament, the Government and the Supreme Court.

Co-ordination takes place between OCECPR and

Ministry of Communication & Works, Ministry of Commerce, Ministry of State

Competition Authority

Data Protection Authority

Spectrum Management Authority

Content Regulation Authority

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Notifications

OCECPR follows notifications EU Telecom framework regime.

6. Rights of way, radio spectrum and Frequency management

OCECPR is empowered to grant rights of way. However, it cannot grant spectrum licenses.

NRA has no competency in frequency management.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Cyprus identifies relevant markets and it does apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds (every 3 years).

9. Regulatory remedies for OCECPR

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	x	x
Cost accounting	x	x	x	x
Transparency	x	x	x	x
Price control	x	x	x	x
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	x
Obligation of interconnection	x	x	x	-
Implementation of wholesale offers	x	x	x	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	x	x	-
Cost accounting	x	x	-
Transparency	x	x	-
Price control	x	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	x	-	-
Collocation facilities	x	x	-
Implementation of wholesale offers	x	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation11)	Broadband access (market 5 of the EC Recommendation12)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	x	-	-
Collocation facilities	x	x	-	-

¹¹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

¹² As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Sharing civil infrastructure	x	x	-	-
Wholesale offer for ducts	x	x	-	-
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers (only on some exception).

Management and control of the rights to use numbers (only on some exception).

11. UNIVERSAL SERVICE (US)

OCECPR is responsible for:

X Provision of access at a fixed location.

X Provision of access to functional Internet services.

X Directory enquiry services and directories.

X Measures for disabled users and those of low incomes.

Universal service is not yet financed by a fund in Cyprus.

OCECPR is competent in designating the operator/s with universal service obligations, calculating the net cost of universal service provision, implementing and managing the funding mechanism of universal service and, finally, it also supervises obligations related

to the provision of universal service.

CYTA is the designated Universal Service provider for the period 2014 – 2017 for all the elements in the scope of universal service, with the exception of the public pay telephones and the directories.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Cyprus, specific legislation for consumer protection for Electronic communication services has been adopted.

In that sense, it deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Procedure for handling complaints by consumers.
- Data protection

Additionally, OCECPR is empowered to handle consumers' complaints and regulation does set a maximum initial duration of contract no longer than 24 months.

Operators are obliged to publish periodically information on tariffs of telecommunication services and OCECPR publish periodically information on tariffs of telecommunication services on this website: <http://tel2me.ocecpr.org.cy>

14. Quality of service (QoS) and switching

In Cyprus, specific legislation to ensure quality of service on telecommunication services and networks has been adopted.

(http://www.ocecpr.org.cy/nqcontent.cfm?a_id=464&tt=ocecpr&lang=gr)

Current QoS legislation establishes QoS indicators regarding fixed and mobile telephony

services. OCECPR is in the process of establishing QoS indicator for fixed broadband.

Service control can be required of any operator.

Regarding switching, OCECPR is responsible for mobile and fixed portability. Number portability in Cyprus has no cost for consumers, whereas for operators there is a porting fee on both fixed and mobile number portability.

15. INTERNATIONAL ROAMING

In Cyprus, international Roaming is regulated as it follows:

- X Wholesale voice calls
- X Wholesale SMS
- X Wholesale data
- X Retail voice calls
- X Retail SMS
- X Retail data

16. PROMOTION OF BROADBAND

OCECPR puts in place an incentive regulation in order to promote the deployment of NGAs' networks.

Regulatory Strategy for promoting investment in NGA has been published.

Strategy for the creation of conditions for Information Society is under implementation.

4.4. EGYPT – NTRA

1. INSTITUTIONAL LAYOUT

NTRA is the independent National Regulatory Authority with competences on Telecommunications, referring to the Act number 10 Year 2003. The Ministry has no power to give instructions to the NRA for the exercise of the tasks assigned to the NRA and there are no other institutions in Egypt with competences on the regulation of the Telecommunications sector.

NTRA President is appointed for two years by the Prime Minister and it can be renewed multiple times.

NTRA does not act as a collegiate body and it currently has 450 employees.

NRA budget is autonomously defined independently implemented as it can autonomously recruit staff.

2. NRAs COMPETENCES AND POWERS

It has competence on Telecommunications sector.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Standardization of equipment
- Quality of service
- Consumers' protection
- Allocation of spectrum

When it comes to NTRA powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority.

The NRA has the power to request information from operators.

The main remedies that can be imposed by NTRA are both behavioural and structural.

NRA's decisions are not directly enforceable and judicial appeals with full review of decisions are possible. Dispute settlement body is not a separate body from NRA.

Fines and penalties are imposed by NTRA.

NRA can submit proposals for sectoral legislative amendments to the Parliament, as it also has an advisory role to the Ministry.

3. NRA's accountability & transparency

Despite not being mandatory for the NRA, NTRA makes public consultations before adopting regulatory decisions as does it for decisions to be published.

NTRA is accountable before Parliament and Government.

The NTRA cooperate effectively with other ministries, entities, and institutions.

For example, The NTRA signed a cooperation protocol with the Competition Authority to ensure fair competition in the market and mutual transfer of experience and knowledge.

The NTRA also signed MoUs with different ministries for providing ICT services and broadband connections to social communities (e.g. schools, hospitals, youth centers, etc).

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Licenses for specific services
- Individual licenses (multi-services)

The NTRA is currently in process to issue the unified license regime in Egypt.

6. Rights of way, radio spectrum and Frequency management

NTRA is empowered to grant rights of way. Additionally, NRA grants spectrum licenses given the fact that the Government does not play a role for granting spectrum licenses and its approval is not needed for NTRA to grant them.

NRA has competency in frequency management, while secondary trading of spectrum and refarming is not allowed in Egypt.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Egypt identifies relevant markets and it does apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP.

9. Regulatory remedies for NTRA

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	-	-	x
Cost accounting	-	-	-	-
Transparency	x	x	-	x
Price control	-	-	-	x
Tariff rebalancing	x	-	-	x
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	x

Obligation of interconnection	x	x	-	-
Implementation of wholesale offers	x	-	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	-	-
Cost accounting	-	-	-
Transparency	x	x	x
Price control	-	-	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	x (in process)	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	-	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access	Broadband access	Retail	

	(market 4 of the EC Recommendation 13)	(market 5 of the EC Recommendation 14)		
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	x	x	x	x
Price control	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	x	-
Unbundling of local loop	x	x	-	-
Collocation facilities	-	-	-	-
Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-
Bitstream wholesale offer	x	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

¹³ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

¹⁴ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers (only on some exception).

Management and control of the rights to use numbers (only on some exception).

11. UNIVERSAL SERVICE (US)

NTRA is responsible for:

X Provision of access at a fixed location.

X Provision of access to functional Internet services.

X Directory enquiry services and directories.

Universal service is financed by a fund in Egypt.

NTRA is competent in designating the operator/s with universal service obligations and implementing and managing the funding mechanism of universal service.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Egypt, specific legislation for consumer protection for Electronic communication services has been adopted.

Additionally, NTRA is empowered to handle consumers' complaints and regulation does not set a maximum initial duration of contract. Any user has the right to change from an operator to another at any point in time, if he wishes so. No operator signs contracts with the end-users stipulating an initial duration

Operators are obliged to publish periodically information on tariffs of telecommunication services.

14. Quality of service (QoS) and switching

In Egypt, specific legislation to ensure quality of service on telecommunication services and networks has been adopted.

Current QoS legislation establishes QoS indicators and NTRA periodically revises them.

Service control can be required to:

- Legacy operator
- Incumbent/dominant/SMP operator
- Mobile operators

Regarding switching, NTRA is responsible for mobile portability (fixed portability is not available in Egypt but it is planned to be introduced in 2015).

15. INTERNATIONAL ROAMING

In Egypt, international Roaming is regulated as it follows:

- X Retail voice calls
- X Retail SMS
- X Retail data

16. PROMOTION OF BROADBAND

NTRA adopted measures to promote the deployment of NGAs' networks (<http://www.tra.gov.eg/emisr/>).

Egypt's national broadband plan e-misr address three main targets:

Availability target that aims to enhance the infrastructure deployment and ensure access to broadband network and services across Egypt.

Penetration target that aims to increase the number of broadband subscribers to reach the critical mass that can boom the industry.

Social target that aims to provide broadband connection to citizen in order to improve the service offered in other sectors such as education, health, agriculture, etc.

4. 5 FRANCE – ARCEP

1. INSTITUTIONAL LAYOUT

ARCEP is the independent National Regulatory Authority with competences on economic regulation of electronic communication and postal sectors, referring to the law n° 96-659, 26th July 1996 (<http://www.arcep.fr/index.php?id=8372&L=1>).

The chairman of the Authority (whose term is for 6 non-renewable years) is appointed by the President of the Republic on proposal of the Prime Minister. Since the Act of 5 March 2007 on the future television, he is appointed after consulting the relevant parliamentary committees on electronic communications and postal sector (Committee on Economic Affairs, Environment and Territory to the National Assembly and Committee on Economic Affairs for the Senate). All Board members are irrevocable and ARCEP works as a collegiate body.

ARCEP has 169 employees and its budget (non-autonomously defined but with autonomy in its implementation) for 2014 was 22.6 million € coming 100% from Public sources.

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Allocation of spectrum
- Quality of service

When it comes to ARCEP powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has ARCEP the power to request information from operators but also can it impose both behavioural and structural remedies (coming from EU framework).

Additionally, some of ARCEP's decisions have a general regulatory scope. These decisions have to be homologated by the Ministry and have to be published in the Journal officiel de la République.

ARCEP can impose fines and penalties and judicial appeals with full review of decisions are possible.

In terms of infringement procedures Order No. 2014-329 draws conclusions on the decision of 5 July 2013, wherein the Constitutional Council considered the legal provisions concerning ARCEP's power to impose sanctions in the electronic communications sector to be unconstitutional. It introduces a new sanctions procedure in the postal and electronic communications sectors, based on the CNIL (French data protection authority) model whose constitutionality has been validated by the "*Conseil d'Etat*", France's highest administrative court. The new provisions in the French Postal and electronic communications code introduce a separation of the proceedings and the adjudication functions by assigning them to different members of the ARCEP Executive Board. A body composed of four Board members, including the Chairman of ARCEP, will adopt decisions on formal notices, investigations, dispute settlements and inquiries, and a second body composed of the Board's three other members will adopt decisions concerning sanctions.

As for dispute settlement, ARCEP has the power to settle disputes between operators (cf. L.36-8 CPCE, I, and L. 34-8), in case of refusal of interconnection (the linking of telecommunications networks in order to allow one operator's subscribers to communicate with another operator's subscribers) or refusal of access (network to which customer equipment is directly connected, giving access to services); in case of a failure of commercial negotiation, or in case of dispute over the conclusion or execution of an interconnection or access agreement. ARCEP needs to be requested to intervene and is also competent in case of a failure of commercial negotiation in particular matters (cf. L.36-8, II) : the conclusion or execution of national roaming, the technical and financial conditions for providing a subscriber list, the conditions and possibilities of operators sharing existing facilities installed on public domains or private property, etc. The parties that bring a claim before ARCEP to settle disputes, benefit from procedural guarantees stemming from fair trial regulations: adversarial action and a reasonable time to take a decision (4 months max). The Decision is prepared by 2 "reporting/investigating judges

nominated by the Director of the legal department. They carry out technical, economic and legal consultations or evaluations, respecting the confidentiality of investigations. They can send preliminary questions to operators, conduct visits, etc. They finally write a report to the College of the ARCEP, read during the hearing and the College decide to approve it or to ask for some changes before it. This decision could be cancelled in appeal. If agreement between the parties: procedure can be stopped whenever, on demand of both parties. ARCEP adopts a decision considering their withdrawal.

3. NRA's ACCOUNTABILITY & TRANSPARENCY

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable for Parliament. The Regulatory Authority shall work together with the Ministry in charge of Digital Economy. The Minister approves part of ARCEP regulatory power. Additionally, there is a very straight institutional relationship with the Competition Authority, cross advice regarding Decisions. Regarding frequencies, ARCEP is in charge of the organization and allocation procedures of the frequencies assigned by the Prime Minister for the electronic communication sector; the National Agency for Frequencies (ANFR) is in charge of spectrum planning. Finally, there is collaboration with the Broadcasting Authority, which is in charge of contents regulation and radio and TV services provision.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. AUTHORIZATION REGIME

- Notifications

For entering the telecoms market, notification is the general rule and individual licenses only exist for specific spectrum assignment (when it is proved that frequencies have to be considering as scarce resources). This authorization regime comes from the EU framework. Next step will be more open licensing system in accordance with EU Framework. One operator already achieves the right to deliver 4G services with frequencies he first acquires for 2G uses.

6. RIGHTS OF WAY, RADIO SPECTRUM AND FREQUENCY MANAGEMENT

ARCEP is not empowered to grant rights of way.

Regarding spectrum licensing, Prime Minister approves the granting process proposed by ARCEP and launch the beauty contest or auction but ARCEP choose the winning bidder(s). Additionally, NRA is the authority for frequency management, and secondary trading of spectrum is allowed in France as it is refarming migration. France has taken a decision on the digital dividend and the 800 MHz band has been allocated to three of the main telecom operator to deliver 4G services. Government and ARCEP are now preparing a new allocation procedure for the 700MHz band. It will probably take place in 2015.

2G/3G spectrum allocation to French mobile operators:

3 mobile bands were allocated for 2G and 3G networks:

- 900 MHz (2G/3G), 1800 MHz (2G/3G but only used in 2G), 2,1 GHz (3G)
- Each MNO has access to low and high frequencies in a balanced way

First allocations of 3G spectrum in France is the early 2000's in band 2,1 GHz

- 2001: Orange France and SFR
- 2002: Bouygues Telecom
- 2010: Free Mobile is authorized as the 4th MNO, 3G-only

In the late 2010's, ARCEP took appropriate measures to conform with the growth of the 3G market

- France was the first country in Europe to open the 900 MHz band to 3G in 2008, therefore contributing to provide a broad coverage of population by 3G networks.
- New 3G frequencies (10 MHz) were made available in 2010 in band 2,1 GHz, preventing from a capacity crunch (allocated to Orange and SFR).
- A fourth MNO, Free Mobile was authorized in 2010 as a 3G-only operator, with frequencies in the 900 MHz and 2,1 GHz bands.

In the meantime, ARCEP was preparing the allocation procedures of 4G frequencies. In the longer term, these frequencies are meant to offer higher data rate to consumer and alleviate the heavy load of 2G/3G networks

The allocation of 4G licenses took place at the end of 2011 in France. Allocation of bands 800 MHz and 2.6 GHz occurred through 2 separate procedures, which were launched simultaneously in May 2011. The 2.6 GHz FDD band, offering a complement of capacity in the dense zones, was allocated in October 2011. The 800 MHz band, providing good properties of propagation for a broad coverage, was allocated in January 2012.

Three main objectives have been set for the award of 2.6 GHz FDD and 800 MHz:

First, digital regional development, which was the top priority set for the allocation of the 800 MHz band. The selected operators are subject to a very ambitious roadmap whose ultimate target is coverage of at least 99.6% of the population of mainland.

Second, competition strengthening in the mobile market. As a result of the auctions, each of the four existing mobile operators will notably be able to deploy 4G services and improve the capacity and quality of their network.

Third, monetizing the State's intangible assets. The total income resulting from the auctions for the State budget is close to €3.6 billion, compared to a reserve price of €2.5 billion.

Digital regional development was a priority objective of the Government for the allocation of the 800 MHz band, resulting from the digital dividend and it is written in the Law. Therefore, ARCEP defined the following three provisions:

- First, ambitious coverage targets, both nationwide and at the departmental level

National : 99,6% of pop in 15 years - 98% of pop in 12 years

Department : 95% of pop in 15 years - 90% of pop in 12 years

- Second, an obligation to perform rollouts in sparsely populated areas first. A priority rollout area has been defined (18% of pop and 63% of surface). Specific deployment obligations are attached: 90% of population in 10 years - 40% in 5 years.

- Third, the system includes measures for encouraging operators to share their network and their frequencies in these areas that are hard to cover.

An operator in the lower 20 MHz of band 800 MHz will have to agree on sharing in the "priority rollout area", when asked to by such another operator. RAN-sharing contributes to reduce roll-out costs, and thus facilitates coverage of rural areas.

ARCEP will closely follow the roll-outs of 4G networks. As for 2G and 3G networks, ARCEP will carry out field measurements of 4G coverage. The launch of 4G services and prospects on future 4G frequencies are now in process.

French mobile operators launched 4G LTE networks in 2014.

- After the allocation procedures, mobile operators are to roll-out their 4G networks.
- In March 2012, all four MNO announced the launch of their 4G services in 2013
- ARCEP will closely follow the roll-outs of 4G networks, with first coverage obligations to be controlled in 3 years. The refarming of band 1800 MHz is now available for LTE, in terms of spectrum management and Bouygues Telecom already use this band to offer 4G services.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. RELEVANT MARKETS

France identifies relevant markets but it does not apply competition law principles since it applies relevant markets defined by European Commission. ARCEP also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds, every 3 years.

9. REGULATORY REMEDIES FOR ARCEP

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit (No regulation since 2008)	Retail
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-

Transparency	x	x	-	-
Price control	x	x	-	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	-	x	-	-
Implementation of wholesale offers	x	x	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	x	x	-
Cost accounting	x	x	-
Transparency	x	x	-
Price control	x	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-

Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	-	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation 15)	Broadband access (market 5 of the EC Recommendation 16)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	x	-	-

¹⁵ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

¹⁶ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Sharing civil infrastructure	x	-	-	-
Wholesale offer for ducts	x	-	-	-
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use **numbers, addresses and names.**

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Public pay telephones.
- Measures for disabled users and those of **low incomes.**

The « Universal Service » Directive defines a minimal set of services, which availability on all the territory recovers from the responsibility of member states.

Component 1: A connection and telephone service: (art. 4); this covers the connection to the fixed public telephone network and the provision of a quality telephone service, which implies a sufficiently high quality access to the internet (at a reasonable speed). The designated operator is required to supply telephone services (currently subscription and calls) at the same price nationwide, which is commonly referred to as

« geographically balanced ». Following the reviewed European framework, the two sub-components – “connection” and “service” – can be provided by two different operators.

Component 2: A printed universal directory: this is made available for free to all those who subscribe to a public telephone service, fixed or mobile. The provision is nationwide. In 2011, the Minister responsible for electronic communications concluded that there was no need to designate a universal service provider either for an electronic directory or for directory services: competition was such that it guaranteed the availability of these services at an affordable price (art. 5). Following the call for applications launched by the Minister in 2011, there was only one candidate, PagesJaunes, whose proposal did not cover several departments. The Minister appointed PagesJaunes on his own initiative as the nationwide printed directories provider.

Component 3: The public payphone service until last February 2014 (art. 6): it covers the installation and maintenance of public payphones (at least one public payphone in each municipality, and two in those with a population of more than 1,000) in the public thoroughfare, and the provision of a quality and reasonably-priced telephone service over these payphones.

The ministry is in charge of the procedure.

ARCEP's role with respect of the US:

- Calculates the net cost of the US, for each component.
- Evaluates intangible benefits of being the US provider, for each component or service element
- Evaluates the unfair burden of the net cost of USO.
- Calculates each operator's contribution. Universal service funding is shared between the operators according to their retail turn-over part with final consumers. Operators who contribute to the universal service fund are those whose retail turn-over is over € 5 million.
- The net cost of US tariffs is included in net cost of the first component.

Universal service is financed by a fund in France, and the authority is competent in the following areas

- Calculating the net cost of universal service provision.
- Supervision of obligations (rates, quality of services, etc.) related to the provision o

universal service.

In France, Orange has been designated to provide universal service regarding component number 1 for the period 2013 – 2016 and component 3 for the period 2012 – 2014; and PagesJaunes regarding component 2 for the period 2012 – 2014.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. CONSUMER PROTECTION

As for France, consumer protection for Electronic communication services is part of Consumer Law. There is no specific Law for the sector.

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.

However, ARCEP is not empowered to handle consumers' complaints and regulation sets a maximum initial duration of contract, no longer than 24 months.

In particular ARCEP missions regarding consumer protection are:

- To ensure an effective competition for consumer benefits (art. L32-1, Code des Postes et des Communications Electroniques - CPCE).
- To ensure high level of consumer protection, in particular: consumer information, tariffs and uses conditions transparency for electronic communication services (art.L32-1, CPCE).
- To fix minimum quality of service expectations (art.L36-6/5°, CPCE).
- To ensure that the minimum legal informations required by the *Code de la consommation* (art. L121-83) are duly stipulated in the contracts signed by consumers. This supervision prerogative is exercised according to the terms of the *Code des postes et des communications électroniques* (art. L130). ARCEP therefore puts forward recommendation on regulatory texts published jointly by the Ministry in charge of consumer protection and the Ministry in charge of electronic communications regarding this issue.

14. QUALITY OF SERVICE (QOS) AND SWITCHING

In France, a certain degree of quality of service is required in operators' authorizations (fixed operators) and licenses (mobile operators). It is also in the terms of the Universal service provider operator obligation.

Regarding switching, ARCEP is responsible for fixed and mobile portability. As of mobile portability, the highest point of ported number occurred with the launch of Free mobile services in January 2012, the operator entered the market with very low prices.

15. INTERNATIONAL ROAMING

In France, international Roaming is regulated in the following sections:

Wholesale voice calls	X
Wholesale SMS	X
Wholesale data	X
Retail voice calls	X
Retail SMS	X
Retail data	X

16. PROMOTION OF BROADBAND

The Plan National Très Haut Débit (PNTHD), launched in 2013, aims to a complete coverage of the territory in 2022. To achieve this goal the PNTHD is mainly based on shared Ftx network and has for it 20 billion euros for a ten year period, coming from the State, the local entities and the operators. Another initiative of the plan is to support hertzian technologies in order to accelerate broadband access in the rural area and for the most isolated inhabitants. To this purpose, three types of mobile networks are involved: new generation satellites, new hertzian terrestrial technologies (WiMAX and

Wifi) and LTE technologies (4G for fixed usage in particular). The 20 billion of public investment are divided between “contracted areas” (where operators have announced their intention to invest, the PNTHD impose them, by signing a tripartite convention with the State and the local authorities, to deploy FttH networks until 2020 – it represents 57% of the territory and 6 to 7 billion euros) and “public initiative networks” (where private initiative is not sufficient the PNTHD help to the deployment of public networks, to local authorities initiatives – it concerns 43% of the territory and it is based on a technological mix : FttH, hertzian technologies and FttC). These “public initiative networks” will receive a public investment of 13 to 14 million and will be financed for 50% by their operating incomes. For a second phase of their deployment, these network will benefit of a double financial help from local authorities: 3,3 billion euros from the “Programme des Investissements d’Avenir” (raised by the State) and the fees coming from operators use of 4G frequencies (own by the State or the local authorities) ; the access to a range of long term loans (up to 40 years) with low rates available from the “Caisse des dépôts et consignations” thanks to the mobilization of regulated savings. This credit can also be completed by a loan coming from the European Investment Bank.

4.6. GERMANY – BNETZA

1. INSTITUTIONAL LAYOUT

BNetzA is the independent National Regulatory Authority with competences on Post, Telecommunications and other Public utilities (energy, gas and railways) established under the BNetzA Act of 7th July 2005 (www.gesetze-im-internet.de/begtpg/), referring to the Telecommunications Act of 25 July 1996. The President is appointed for 5 years with possibility of one (1) renewal. According to the BNetzA Act the President can be dismissed for “important reasons” concretely defined in German jurisdiction. BNetzA is headed by its President and not by a collegiate body. The Federal Cartel Office has however the responsibility for enforcing general competition law in the telecoms sector.

BNetzA has 2,862 employees and its budget (subject to Parliament approval) for 2014 was 174,923,000€ coming from the following resources:

BUDGET 2014 (Euros): 174,923,000€

- Public sources 44.1%;
- Fees for spectrum 39.6%;
- Numbering fees 0.8%;
- Amateur radio, digital signature, radio equipment and telecommunications terminal equipment, operator’s certificate in the aeronautical mobile service, measurements for third parties (i. e. environmental impact measurements, Leeheim Satellite Monitoring station), post (postal licenses), energy and railway, other sources 15,1 %.
- Fines 0.4%

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications, Broadcasting and Post sectors.

Regarding the telecommunication sector this authority is competent in:

Market analysis

- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Networks' security
- Allocation of spectrum
- Standardization of equipment
- Quality of service
- Consumers' protection
- Privacy and data protection

BNetzA has the authority to impose the full set of ex ante remedies, provided for in the Regulatory Framework for Electronic Communications, .i.e.:

- Transparency (e.g., publishing RIO and RUO)
- Non discrimination
- Interconnection and access obligations
- Regulatory accounting
- Accounting separation
- Price control
- Functional Separation

Despite having partial power to give instructions to the NRA, the Ministry has also never issued a direction in the telecommunications sector.

Enforcement powers are vested in the NRA and could be described as follows:

- Coercive and administrative fines
- Additional frequency/numbering assignment obligations, restriction or prohibition of providing telecommunication services, revocation of frequency/numbering assignments. Network operation can be suspended – even when licenses are not necessary – in the case of serious or repeated breaches of obligations. Market surveillance enforcement activities (EMC Directive, R&TTE Directive) including measures such as requiring corrective action, sales ban and withdrawal from the

market.

The Parliament has a formally envisaged role by law in the matters of competence.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable for Parliament.

In the cases specified in sections 10, 11, 40, 41 and section 62(2) paragraph 3 of the Federal Telecommunications Act the Regulatory Authority shall take decisions in agreement with the Federal Cartel Office. Where the Regulatory Authority takes decisions in accordance with Part 2, Chapters 2 to 5 or section 77a (1) and (2) of the Federal Telecommunications Act, it shall give the Federal Cartel Office the opportunity to state its views in good time before closure of the case. Where the Federal Cartel Office opens cases in the telecommunications sector under sections 19 and 20(1) and (2) of the Competition Act, Article 102 of the EC Treaty or section 40(2) of the Competition Act, it shall give the Regulatory Authority the opportunity to state its views in good time before closure of the case. Both authorities shall seek to achieve a uniform interpretation of this Act and one which is consistent with the Competition Act. They are to inform each other of all observations and findings which may be of significance to the discharge of their respective functions.

The Regulatory Authority shall work together with the state media authorities. At their request, the Regulatory Authority shall inform these authorities of findings required for the discharge of their functions.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Notifications

For entering the telecoms market, no specific license is required. Yet, any person operating a public telecommunications network on a profit-oriented basis or providing a publicly available telecommunications service on a profit-oriented basis shall notify the Regulatory Authority without undue delay of beginning to provide, of providing with

differences or of ceasing to provide his activity and of any changes in his undertaking. Such notification requires written form.

6. Rights of way, radio spectrum and Frequency management

NRA is empowered to grant rights of way and the approval of Government is not necessary to grant licenses. Additionally, BNetzA is the authority for frequency management, and secondary trading of spectrum is allowed in Germany as it is refarming migration. Germany also has taken a decision on the digital dividend and has auctioned the 790-862 MHz band for mobile services.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Germany identifies relevant markets applying competition law principles and also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds, every 3 years.

9. Regulatory remedies for BNetzA

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	x	x	-	-

Price control	x	x	-	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	x	-	-	-
Obligation of interconnection	x	x	-	-
Implementation of wholesale offers	Carrier selection and pre-selection	-	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	-	-
Cost accounting	-	-	-
Transparency	-	x	-
Price control	-	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	x	-
Obligation of interconnection	-	-	-
Access to Mobile Virtual Operators (MVNOs)	-	x	-

Collocation facilities	-	-	-
Implementation of wholesale offers	-	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation17)	Broadband access (market 5 of the EC Recommendation18)	Retail	
Regulatory accounting separation	-	x	-	-
Cost accounting	-	-	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	-	-	-	-

¹⁷ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

¹⁸ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-
Bitstream wholesale offer	-	-	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Directory enquiry services and directories.
- Public pay telephones.
- Measures for disabled users and those of low incomes.
- Other

In Germany no USO (universal service obligation) provider has been designated. So far competition in the relevant markets brings about sufficient Universal Service (US) provision. Up to now US in Germany has been voluntarily provided by the incumbent. Looking at prices of US services, one can see that they meet the standards stated in the law. However, if the incumbent should decide not to provide US to the full extent or to provide US under less favorable conditions than those legally specified whatsoever, the

Federal Network Agency has to be notified one year in advance. Thus regulatory measures are only to be taken up in case of need, which means letting market activities do their work first.

Universal service is not financed by a fund in Germany, and the authority is competent in the following areas:

- Designation of the operator or operators with universal service obligations.
- Calculating the net cost of universal service provision.
- Implementation and management of the funding mechanism of universal service.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

Germany has adopted specific legislation to protect telecommunications' end users' right. In particular regulation deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Data protection.
- Procedure for handling complaints by consumers.

Furthermore, this authority is empowered to handle consumers' complaints and regulation sets a maximum initial duration of contract, no longer than 24 months. However, BNetzA does not oblige operators to publish their services on their website and authority does not publish periodically information on tariffs on its website.

14. Quality of service (QoS) and switching

In Germany, there is specific legislation to ensure quality of service but no penalties are established for non-compliance with QoS standards.

Regarding switching, BNetzA is responsible for fixed and mobile portability.

15. INTERNATIONAL ROAMING

In Germany, international Roaming is regulated in the following sections:

- X Wholesale voice calls
- X Wholesale SMS
- X Wholesale data
- X Retail data
- X Retail voice calls
- X Retail SMS

16. PROMOTION OF BROADBAND

The Ministry has started a broadband initiative already years ago. In fact the deployment of broadband availability is market driven. However, in some rural areas, due to a lack of knowledge and coordination, broadband availability has not yet been realized in almost 700 communities. Therefore the Ministry has started some activities including (i) a virtual broadband map that shows the current status quo of broadband availability and is updated every six months; (ii) a task force, comprising the relevant associations, undertakings and administrations, in order to exchange views and establish concrete projects like the gathering of more detailed data regarding broadband availability; (iii) a guide for municipalities how to use public financial support; and (iv) projects in which some municipalities has been concretely advised by assessing the different options and taking a decision. All activities are summarized on www.zukunft-breitband.de.

4.7. GREECE – EETT

1. INSTITUTIONAL LAYOUT

EETT is the independent National Regulatory Authority with competences on competition and regulation of electronic communication, broadcasting, postal sectors and antitrust sectors - but only in the areas of its competences-, referring to Law 2075/1992, and is currently governed by the Law 4070/2012 (hereinafter referred as “Law”).

According to the Law, as members of the board of EETT are appointed persons of high esteem, enjoying broad social recognition, and distinguished for their education and professional expertise in the technological, economic or legal science.

Chairman's and members of the board term is for four years and it can be renewed just once. According to the Law, such members can be dismissed only in case they do not any longer fulfill the required conditions for performing their duties. EETT is composed by 9 members, including the President and two Vice Presidents.

EETT has 212 employees and its budget (autonomously defined and implemented) for 2014 was:

Investment costs: 2.090.000 €

Operating costs: 17.895.379€

coming from the following resources:

Regulated undertakings (e.g. administrative charges) 32%

Fees for spectrum and/or rights or use 52%

Others (fines): 16%

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications, Post sectors and Antitrust -but only in the areas of its competences-.

Regarding the telecommunication sector this authority is competent in:

Market analysis

- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Allocation of spectrum
- Quality of service
- Consumers' protection
- Standardization of equipment

When it comes to EETT powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has NRA the power to request information from operators but also can it impose both behavioural and structural remedies to achieve effective competition.

EETT can impose behavioral as well as structural remedies, in accordance to the European Regulatory Framework for electronic communications.

NRA can impose fines and penalties and judicial appeals with full review of decisions are possible. Additionally, EETT decisions are directly enforceable.

Law 4070/2012, as amended and in force, grants Greece's NRA the powers to conduct official hearings and impose fines and penalties to operators for non-compliance with the relevant regulatory framework.

As for EETT, an advisory role to the Parliament or Government is formally envisaged by law in the matters of competence.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable before Government and Parliament.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Notifications

In Greece, General Authorizations are required for the engagement in all kinds of electronic communication activities pertaining to the provision of electronic communication networks or/and services, conforming to telecommunications Law No. 4070/2012 and the “Regulation on General Authorizations” (EETT Decision no 676/41/20-12-12).

To provide electronic communication networks or/and services under a General Authorization regime, only persons providing public communication networks or publicly available electronic communication services, are required to submit a Registration Declaration.

Furthermore, a General Authorization is required for the provision of electronic communication services by third persons which, despite the fact that they do not have their electronic communication infrastructure, provide electronic communication services — however, under their own different trade name and separate corporate organization — based on the infrastructure of other persons providing electronic communication networks or/and services which they have concluded relevant contracts with.

On the contrary, according to the Regulation on General Authorizations, no General Authorization is required:

For the simple resale of electronic communication services to users

For the own use of terminal radio equipment, based on the non-exclusive use of special frequency bands, as determined by a competent Authority, by the User for reasons not associated with financial activities, such as the use of the civilian band by amateur radio operators, which does not constitute the provision of an electronic communication network or service and is governed by the stipulations included in the provisions laid down in applicable law on terminal equipment and radio equipment.

6. Rights of way, radio spectrum and Frequency management

EETT is not empowered to grant rights of way. Government plays a role for granting spectrum license but approval of your Government necessary to grant licenses is not

necessary.

The approval of the Government is not necessary to grant licenses. However, a Ministerial Decision is necessary in order for the Regulator to limit the number of spectrum rights on any frequency band, which is in most cases the first step to any granting process.

Additionally, NRA is the authority for frequency management, and both secondary trading and refarming migration of spectrum is allowed in Croatia.

Greece has taken a decision on the digital dividend. Digital Dividend is used for the deployment of broadband mobile networks compatible with IMT-2000 systems

In Greece licenses have been granted for IMT-2000 compatible broadband mobile networks in the bands 900MHz, 1800MHz, 2100MHz and 800MHz, 2600MHz, 3.4-3.8GHz during the years 2011 and 2014 respectively. There is strong development of next generation mobile networks in Greece in recent years, and already about 60% of the population have access to LTE commercial services.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Greece identifies relevant markets and it does apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds.

EETT conducts a market review of every electronic communication market which is still regulated, every three years.

9. Regulatory remedies for EETT

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access &	Termination	Transit	Retail

	origination			
Regulatory accounting separation	x	x	-	x
Cost accounting	x	x	-	x
Transparency	x	x	-	x
Price control	x	x	-	x
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	x
Regulation of retail tariffs	-	-	-	x
Obligation of interconnection	x	x	-	x
Implementation of wholesale offers	x	x	-	x

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting	-	x	-

separation			
Cost accounting	-	x	-
Transparency	-	x	-
Price control	-	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	-	x	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ¹⁹)	Broadband access (market 5 of the EC Recommendation ²⁰)	Retail	

¹⁹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

²⁰ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is

Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	x	-	-
Sharing civil infrastructure	x	-	-	-
Wholesale offer for ducts	x	-	-	-
Bitstream wholesale offer	-	x	-	-

situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Public pay telephones.
- Directory enquiry services and directories.
- Measures for disabled users and those of low incomes.

Universal Service in Greece is financed by a fund.

EETT is competent in the following areas

- Designation of the operator or operators with universal service obligations.
- Calculating the net cost of universal service provision.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.
- Implementation and management of the funding mechanism of universal service.

Until now there is one Universal Service (US) provider in Greece, the former incumbent (OTE). The minimum designation period, according to the relevant ministerial decision is 3 years. OTE is responsible for the provision of all the services included in the US obligation.

Currently, there is an ongoing procedure, based on an auction mechanism, for the designation of a new US provider. According to the new legislation in force, the

universal service provision can be assigned to more than one undertakings (for example to provide the US in different areas of the Greek territory). The designation of several US providers for the provision of services in different areas of the Greek territory is possible under certain criteria to be defined by the NRA.

These criteria have to be in accordance with the following principles:

The minimization of the net cost for the US provision.

The viability for the undertaking.

The US services cost for the end user.

Development of effective incentives for the US provision.

The terms and conditions for the above mentioned auction mechanism are currently under examination and EETT is to launch soon the procedure.

OTE (the Universal Service Provider) has provided the calculation of the Net Cost Universal Service (NCUS) for the years 2010, 2011, 2012. The submitted data are under examination by EETT.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Greece, specific legislation for consumer protection for Electronic communication services has been applied. In that sense, it deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Procedure for handling complaints by consumers.

Additionally, EETT is empowered to handle consumers' complaints and regulation sets a maximum initial duration of contract, no longer than 24 months.

EETT publish periodically information on tariffs of telecommunication services on your

website which allow comparing offers:

http://www.eett.gr/opencms/opencms/EETT/Electronic_Communications/Observatory/index.html

14. Quality of service (QoS) and switching

In Greece, quality of service on telecommunication services and networks are defined:

http://www.eett.gr/opencms/export/sites/default/EETT/Consumer/QualityIndicators/LegalFramework/2417_B_2011.pdf

Service control is required for mobile and Universal service operators, and regulation establishes penalties for non-compliance with QoS standards. EETT periodically revises QoS parameters.

Regarding switching, EETT is responsible for one-day fixed and mobile portability.

Number portability is an important vehicle for the promotion of competition, which is utilized by both fixed and mobile operators. Ported mobile numbers accounted in 2013 for 4,5% of active mobile subscriptions, while ported fixed numbers accounted in 2013 for 12,1% of fixed telephone lines.

15. INTERNATIONAL ROAMING

In Greece, international Roaming is regulated by EU-Guidelines (EEA area, by Roaming Regulation (531/2012)) in the following areas:

- X Wholesale voice calls
- X Wholesale SMS
- X Wholesale data
- X Retail voice calls
- X Retail SMS
- X Retail data

16. PROMOTION OF BROADBAND

A number of measures have been taken to ensure deployment of NGA in Greece.

The regulatory measures by EETT concerning VDSL services have enabled the deployment of OTE's VDSL network.

In a broader context, EETT has furthermore taken measures to promote the deployment of next generation mobile (LTE) networks, through the award of sufficient spectrum in a technology neutral manner (including the auctioning of digital dividend, currently under way).

Greece has not yet adopted any plan to guarantee the access of all the citizens to broadband services.

4.8. ISRAEL – MOC

1. INSTITUTIONAL LAYOUT

Minsitry of Communications is the regulatory authority for Telecommunications, Broadcasting and Post services. The Communications and Broadcasts Law regulates the sector locally and the Minister of Communications is a member of the government (cabinet) and is appointed by the Prime Minister. The Board is not a collegiate body.

This institution has 165 employees subject to civil service rules and it has no own budget either autonomy to implement it, since all sources come from State budget.

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications, Broadcasting and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Networks' security
- Allocation of spectrum
- Standardization of equipment
- Quality of service
- Consumers' protection

According to the Communications and Broadcasts Law it can request information to operators and the Ministry may impose behavioral remedies such as tariff control or marketing restrictions such as bundling, structural remedies such as structural separation, and market-based remedies such as wholesale access.^j

However, Tariff control requires the agreement of the Minister of Finance.

Enforcement powers are vested in the Minister, who has delegated authority to the

enforcement division. All enforcement actions are subject to a hearing before implementation.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable for Parliament and Government.

The Ministry of Communications coordinates with the Israel Antitrust Authority on matters of mergers and acquisitions, and other relevant issues. In addition, it coordinates with the Ministry of Finance on industry-wide reforms and with other agencies as appropriate.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

Licenses are granted as general licenses (for a variety of services) or special licenses (for specific services or services granted to a relatively small number of users).

- Licenses for specific services
- Individual licenses (multi-services)
- Unified licenses (global)

6. Rights of way, radio spectrum and Frequency management

NRA is no empowered to grant rights of way but it does has powers when it comes to spectrum licenses and frequency management. However no refarming migration is allowed and Israel has not reach a decision on the digital dividend.

Israel has allocated spectrum for 3G services in the 1800 Mhz and 2100 Mhz bands. Currently, a tender is beginning to grant 4G frequencies in the 1800 Mhz band, and it is expected that this process will be completed by the end of the year. Frequencies are

generally allocated using a competitive process.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Israel identifies relevant markets applying competition law principles and also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds.

9. Regulatory remedies for ISRAEL

3

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	-	-	-
Cost accounting	x	-	-	-
Transparency	-	-	-	x
Price control	-	x	-	x
Tariff rebalancing	-	-	-	x
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	x
Obligation of interconnection	-	x	-	x
Implementation of wholesale offers	pending	-	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	-	-
Cost accounting	-	-	-
Transparency	-	-	-
Price control	-	yes	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	-	yes	-
Access to Mobile Virtual Operators (MVNOs)	yes	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	-	-

BROADBAND MARKETS			
	WHOLESALE	RETAIL	MOBILE

	Infrastructure access (market 4 of the EC Recommendation ²¹)	Broadband access (market 5 of the EC Recommendation ²²)	Retail	
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	-	-	-	-
Price control	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	-	-	-	-
Collocation facilities	-	-	-	-
Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-
Bitstream wholesale offer	-	-	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

²¹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

²² As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

NRA is responsible for:

- X Development of the National Numbering Plan.
- X Assignment of rights to use numbers, addresses and names.
- X Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- X Provision of access at a fixed location.
- X Provision of access to functional Internet services.
- X Directory enquiry services and directories.
- X Public pay telephones.
- X Measures for disabled users and those of low incomes.

Universal service is not financed by a fund in Israel, and the authority is competent in the following areas:

- Designation of the operator or operators with universal service obligations.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

Bezeq and HOT telecom are the designated universal operators. They are required to offer all services (including broadband) throughout the country.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

Israel has not adopted specific legislation to protect telecommunications' end users' right. However, this authority is empowered to handle consumers' complaints, and operators are obliged to publish the tariffs on their website and contracts length cannot be extended for more than 24 months. In fact, contracts are now barred and all consumers may switch

without penalty.

14. Quality of service and switching

In Israel, there is no specific legislation to ensure quality of service but any operator can be subject to service control.

The communications law has been amended to required net neutrality.

15. INTERNATIONAL ROAMING

In Israel there is no regulation of Roaming.

16. PROMOTION OF BROADBAND

As for Israel, Broadband service is universal.

4.9. ITALY - AGCOM

1. INSTITUTIONAL LAYOUT

AGCOM is the independent National Regulatory Authority with competences on Telecommunications, Broadcasting – TV Transmission-, Content TV and Post sectors, referring to LAW 249/1997 "Istituzione dell'Autorità per le garanzie nelle comunicazioni e norme sui sistemi delle telecomunicazioni e radiotelevisivo". For the rest, NRA is responsible to regulate the telecommunication sector. However, other public institutions also have competences on the sector: e.g. Ministry of economic development for granting of spectrum licenses, etc.; Garante per la protezione dei dati personali for data protection. The Ministry has no power to give instructions to the NRA for the exercise of the tasks assigned to the NRA.

AGCOM President and four commissioners (members of the board) are appointed for seven years and it cannot be renewed. The President is appointed by the President of the Italian Republic on the basis of the proposal of the Italian Prime Minister, and is suggested by the Ministry for the economic development. Commissioners are appointed by the President of the Italian Republic on the basis of a Parliamentary vote. AGCOM acts as a collegiate body and its President cannot be dismissed.

The NRA has 372 employees as of 30th April 2014.

AGCOM budget (autonomously defined and implemented) for 2014 was €72 Million coming from Regulated undertakings (e.g. administrative charges).

2. NRAs COMPETENCES AND POWERS

It has competence on Telecommunications, Broadcasting – TV Transmission-, Content TV and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations

- Resolution of disputes
- Numbering
- Allocation of spectrum
- Quality of service
- Consumers' protection

When it comes to AGCOM powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority.

The NRA has the power to request information from operators.

Following EU regulation the main remedies that can be imposed by AGCOM are:

Obligation of transparency

Obligation of non-discrimination

Obligation of accounting separation

Obligations of access to, and use of, specific network facilities

Price control and cost accounting obligations

Functional separation

NRA's decisions are directly enforceable and judicial appeals with full review of decisions are possible. Dispute settlement body is in first instance a separate body from NRA, but in second instance AGCOM is competent.

Fines and penalties are imposed by the relevant department and AGCOM can submit proposals for sectoral legislative amendments to the Parliament, as it also has an advisory role to this and the Government in matters of competence.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable before Parliament.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Licenses for specific services
- Notifications

According to the EU Telecom framework, “general authorizations” (very similar to notifications) are issued to operators wishing to enter the telecom market with no use of scarce resources. If scarce resources are needed to operate, then the Ministry will issue “individual licenses” granting the “rights of use” of the spectrum.

6. Rights of way, radio spectrum and Frequency management

AGCOM is not empowered to grant rights of way. Additionally, it cannot grant spectrum licenses as it is the Government (Ministry of economic development) who plays a role for granting spectrum license and provides the approval to grant licenses. However, assignment plans are defined by the Authority and shall be applied.

NRA is the authority for frequency management, and both limited secondary trading and refarming migration of spectrum are allowed in Italy.

Italy has taken a decision on the digital dividend. As a matter of fact, 800 Mhz band has been already assigned and is used for wireless broadband (LTE). An auction based on AGCOM regulation has been carried out by the Ministry in 2011. The 700 MHz band is also under consideration at EU level, taking into account the work ongoing within European bodies such as RSPG and CEPT, to be used in future for wireless broadband, based on the ITU co-primary allocation to the mobile services that will start in November 2015.

Italy had already carried out a comprehensive spectrum assignment process for the 800 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.5 GHz bands. Some blocks of spectrum in 900 and 1800 MHz bands have been already authorized to be refarmed at request of operators, respectively, to UMTS and LTE use. Some specific reorganization of the bands has also been carried out in order to reach contiguity of spectrum in each band. The assignment and the refarming process established requirements of investment in infrastructures which have been implemented over the past years. Italy also completed

the switchover to digital terrestrial television and completed the migration of BC service below 800 MHz in 2012. Activities for 3.7 and 1.5 GHz bands are ongoing.

There have been positive developments as regards LTE in Italy, where a number of operators started to provide LTE commercial service in 2013. Existing GSM bands also started to provide 3G/4G services while maintaining GSM existing obligations.

As explained in the previous box AGCOM provides for the assignment plans of scarce frequencies bands for ECNS and in particular for harmonized bands, where we closely follow the EU regulation. Ministry of Communication is in charge of spectrum allocation and of issuing rights of use and general authorizations.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Italy identifies relevant markets and it does apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds.

Market analyses are renewed periodically.

9. Regulatory remedies for AGCOM

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	x	-
Cost accounting	x	x	x	-
Transparency	x	x	x	x

Price control	x	x	x	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	x	x	x	-
Implementation of wholesale offers	x	x	x	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	x	-
Cost accounting	-	x	-
Transparency	-	x	x
Price control	-	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-

Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	x	-	-
Collocation facilities	x	x	-
Implementation of wholesale offers	x	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ²³)	Broadband access (market 5 of the EC Recommendation ²⁴)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	x	x

²³ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

²⁴ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	x	-	-
Collocation facilities	x	x	-	-
Sharing civil infrastructure	x	x	-	-
Wholesale offer for ducts	x	x	-	-
Bitstream wholesale offer	x	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers (only on some exception).

Management and control of the rights to use numbers (only on some exception).

11. UNIVERSAL SERVICE (US)

AGCOM is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Directory enquiry services and directories.
- Public pay telephones.
- Measures for disabled users and those of low incomes.

Universal service is financed by a fund in Italy.

AGCOM is competent in designating the operator/s with universal service obligations, calculating the net cost of universal service provision, implementing and managing the funding mechanism of universal service and, finally, it also supervises obligations related to the provision of universal service.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Italy, specific legislation for consumer protection for Electronic communication services has been applied (General laws such as Codice del Consumo and Codice della privacy and specific legislation -Codice delle comunicazioni elettroniche-, both implemented by several AGCOM's decisions).

In that sense, it deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Procedure for handling complaints by consumers.
- Data protection.

Additionally, AGCOM is empowered to handle consumers' complaints and regulation does set a maximum initial duration of contract no longer than 24 months.

Operators are obliged to publish periodically information on tariffs of telecommunication services and AGCOM publish periodically information on tariffs of telecommunication services on this website: www.supermoney.eu.

14. Quality of service (QoS) and switching

In Italy, specific legislation to ensure quality of service on telecommunication services and networks have been adopted.

QoS on telecommunication services and networks is ensured by the Codice delle comunicazioni elettroniche and AGCOM decisions (e.g. 179/03/CSP, 254/04/CSP for fixed voice services, 154/12/CONS and 104/05/CSP for mobile services, 131/06/CSP and 244/08/CSP for internet services, 278/04/CSP for pay-tv services, 79/09/CSP for call center services).

Service control can be required to any operator. Regulation establishes penalties for non-compliance with QoS standards. AGCOM periodically revises QoS parameters.

Regarding switching, Agcom is responsible for one-day mobile portability as it is so for fixed portability.

15. INTERNATIONAL ROAMING

In Italy, international Roaming is regulated as it follows:

X Wholesale voice calls

X Wholesale SMS

X Wholesale data

X Retail voice calls

X Retail SMS

X Retail data

16. PROMOTION OF BROADBAND

AGCOM puts in place an incentive regulation in order to promote the deployment of NGAs' networks.

The main decision is no. 1/12/CONS, approved in January 2012. According to the above decision, the SMP operator in the fixed access markets has the obligation to provide, inter alia, fibre unbundling services at the local exchange level once technically feasible.

Moreover, AGCOM has recently regulated the procedures for the access to incumbent's cabinets to support the unbundling of the local sub-loop (SLU) service which is a relevant service in the FTTC investment scenario.

Since 2010 the Italian Government has taken several measures to promote the digital innovation and to meet the commitments defined by the Digital Agenda and the European target for 2013, 2015 and 2020.

To this aim, the Law Decree n. 5, of 9 February 2012, entitled: "Urgent measures for simplification and development", foresees the establishment of a "Cabina di Regia" that is a structured and go-ahead "Control Room" for the implementation of the Digital Agenda in the Country. The Cabina involves at least five different competencies at ministerial level and it will term its work, within the Autumn of 2012, with the provision of a Decree identifying first relevant legislative measures for the rapid implementation of the Digital Agenda.

On December 13, 2013, the Council of Ministers approved Law Decree No. 145 of December 23, 2013 (the Destination Italy Decree) containing a package of measures to revive the Italian economy and introducing new rules aimed at attracting investors. The package includes measures relating to the Digital Agenda.

The most significant initiatives taken by the Government and local authorities are: the "National Broadband Plan", notified to the European Commission in 2011, which sets out measures aimed at bridging the digital divide; the "Strategic Project Digital Agenda Italian", notified the European Commission in 2012, which lays down measures aimed at the development of services in ultra-wideband.

4.10. JORDAN - TRC

1. INSTITUTIONAL LAYOUT

TRC is the only independent National Regulatory Authority with competences regulation of electronic communication sector as well as Antitrust for Telecom and Promotion of IT and e-Government referring to TELECOMMUNICATIONS LAW NO. (13) of 1995 and its amendments.

According to article (8/a) in the telecommunication law: The Commission (i.e. NRA) shall be administered and supervised by a Board, known as the (Board of Commissioners), which shall be composed of five full-time members appointed by a resolution of the Council of Ministers, upon nomination by the Prime Minister based on the recommendation of the Minister, provided that there be amongst them distinguished experience in the field of Telecommunications. The Chairperson and Deputy Chairperson shall be named in this resolution. Board term is four years and TRC act as a collegiate body and it currently has 158 employees autonomously recruited.

TRC budget (autonomously defined and implemented) for 2014 was JD 6,665,000.000 coming from:

- a. Public sources (e.g. State and/or local budget) 12%
- b. Regulated undertakings (e.g. administrative charges) : 88%

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications and Post sectors as well as Antitrust for Telecom and Promotion of IT and e-Government.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes

- Numbering
- Allocation of spectrum
- Standardization of equipment
- Quality of service
- Consumers' protection
- Privacy and data protection

When it comes to NRA powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has RTC the power to request information from operators but also can it impose both behavioral and structural remedies within the competence allocated to RTC.

TRC decisions enforcement powers are stipulated in Article 40 of the law, where the TRC has the Authority to cancel either partial or fully the license in the circumstances of not applying the TRC's decisions. The terms and conditions of the license also gives the TRC further enforcement powers as licensees are obliged to comply themselves to the legislations including TRC's instruction as stipulated within the License's granted to them. Furthermore, TRC's fine's decisions are considered administrative and collected on the base of granting the TRC powers to such fines where the state procedures are applied to collect the fines.

TRC in regard to Article 6/P of the Telecommunication Law may propose legislations related to the Telecommunication sector to be submitted to the Ministry of Telecommunication and Information Technology which has the authority to introduce such proposals to the Cabinet.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable before Parliament and Government.

In Jordan, the TRC is responsible for all telecom matters and coordination is there between the TRC and other regulatory institutions where there are both complementary roles or where there are dual jurisdictions for matters related to the telecom sector and

there is no clear legal position on the competent jurisdiction. So to control any dispute regarding the dual competences and jurisdictions especially on matters of competitions, the TRC entered many MoUs (i.e. memorandum of understanding agreement with the relevant parties for example the Competition Directorate within the ministry of industry and trade. Another example related to the Type Approvals for Telecom devices and peripherals the TRC signed an MoU with Jordan Institution for Standards and Metrology).

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Others: two type of licenses issued by TRC: Individual and class.

In Jordan we have simplified licensing regime where potential entrant to the telecom market can choose from amongst two types of licenses namely: Individual license or class license where the differences between them are mainly the use of scarce resources in the case of individual license. However both licenses are general licenses and not specific to particular telecom services.

Spectrum has its own licensing management process.

6. Rights of way, radio spectrum and Frequency management

TRC is not empowered to grant rights of way and the approval of Government is not necessary to grant licenses given the fact that Government does not play a role for granting spectrum licenses. Additionally, NRA is the authority for frequency management, and secondary trading of spectrum is not allowed in Jordan while refarming migration it is. Jordan has taken a decision on the digital dividend for LTE services.

TRC coordinates with all stakeholders to align its spectrum management processes with that of the ITU region 1, it also makes sure to avail the needed spectrum to meet the industry needs on time.

TRC granted licenses in the following frequency bands: 900 MHz, 1800 MHz, 2100 MHz for 2G, 3G, 4G MNP's and 3500, 5300 MHz for FBWA operators, the allocation process varied from purely administrative (as per the 2G frequencies) to auctions as for the

3G,4G and FWBA.

The first digital dividend frequency band namely 800 MHz was made available for licensing, but no interest currently shown from the operators side.

On the road map the second digital dividend is planned on the 700 MHz band according to the decisions and resolution of WRC-15.

The digital switch over will take a place during 2015-2016.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Jordan identifies relevant markets and it does apply competition law principles so as to define relevant markets. TRC also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds, every 3 or 4 years.

TRC concluded the market review exercise first time in 2011 during which it has reviewed relevant telecommunications markets. TRC anticipates a market review cycle of 3 to 4 years .Any new analysis will consider the effective implementations of the remedies and markets dynamic.

9. Regulatory remedies for TRC

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	x	x
Cost accounting	x	x	x	x
Transparency	x	x	x	x
Price control	x	x	x	x

Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	x
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	x	x	x	-
Implementation of wholesale offers	x	x	x	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	x	-
Cost accounting	x	x	-
Transparency	x	x	-
Price control	x	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	x	x	-

Implementation of wholesale offers	x	x	-
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BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ²⁵)	Broadband access (market 5 of the EC Recommendation ²⁶)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	x	-	-
Sharing civil infrastructure	-	-	-	-
Wholesale	X	-	-	-

²⁵ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

²⁶ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

offer for ducts				
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use **numbers, addresses and names.**

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Public pay telephones.
- Measures for disabled users and those of low **incomes.**

In Jordan the Fixed Network incumbent is designated as the US provider. The universal service (US) is not financed by a fund.

However, TRC is competent in:

- Designation of the operator or operators with universal service obligations.
- Calculating the net cost of universal service provision.
- Implementation and management of the funding mechanism of universal service.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

Until it is determined in accordance with the USO Instructions that effective competition has begun to the fixed line incumbent's (Jordan Telecom JT then) provision of a Public Switched Voice Service, JT shall continue to be the USP in all geographic areas and that JT shall continue to bear the entire cost of the USO under the terms of its licenses and these USO Instructions.

The relevant provisions of the USO Instructions are:

1. The Universal Service shall be available to any Person requesting such service at the prevailing standard connection and other rates for the Basic Public Telephone Service charged by the relevant Universal Service Provider.
2. The Universal Service shall be available in all municipalities and populated areas recognized by the Minister of Municipalities and Environment of Jordan that have a population of 300 or more permanent inhabitants as determined from time to time by the Department of Statistics, or its successor.
3. The Universal Service shall also be available outside such municipalities and populated areas to any Person requesting such service at the prevailing standard connection and other rates for the Basic Public Telephone Service charged by the designated USP for the area that covers the location where service is requested, provided however that in such circumstances the USP shall be permitted to recover from such customer the full incremental cost of connection over and above the average cost of connection of the USP if and to the extent such cost exceeds the USP's average cost of 50 man hours work plus 500 JD.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Jordan, specific legislation to protect telecommunications' end users' rights was adopted, dealing with:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Data protection.

Procedure for handling complaints by consumers.

Additionally, TRC is empowered to handle with consumers' complaints and regulation sets a maximum initial duration of contract, no longer than 24 months. TRC does oblige operators to publish their prices for their wholesale services (and other retail services if any) within the TRC's approved RIOs on their websites, but regarding the unregulated retail services or any services in general there is a legal evidence in the telecom law to be published on an ex-ante basis (i.e. in advance) to their expected consumers.

14. Quality of service (QoS) and switching

In Jordan, instructions for implementing the quality of service framework were adopted to ensure quality of service on telecommunication services and networks for any operator.

Regarding switching, in Jordan there is not availability for fixed and mobile portability, but TRC has responsibilities on switching regulation.

15. INTERNATIONAL ROAMING

In Jordan, international Roaming is not regulated.

16. PROMOTION OF BROADBAND

The TRC is directed to encourage infrastructure sharing where possible and feasible, where the "STATEMENT OF GOVERNMENT POLICY 2012" directs the TRC in approaching the high penetration rate of broadband services to consider amongst others the following:

- Enforcing infrastructure and facilities sharing between operators, and encouraging sharing of facilities with public utilities (such as electricity providers), at reasonable prices and conditions, in order to reduce the costs of providing and extending Internet service.
- Ensuring the provision of physical network infrastructure access services such as

Local Loop Unbundling and all forms of unbundled and shared access to local loops and sub loops at each feasible location, including access to associated facilities and services on a nondiscriminatory basis.

So taking into consideration the efforts made by many operators and public infrastructure owner in the deployment of fiber networks and other important infrastructure provides step ahead towards the deployment of NGAs' networks.

It is an obligation upon the TRC to consider the deployment of high speed internet (i.e. Broadband services), where the "STATEMENT OF GOVERNMENT POLICY 2012" declares that fast, reliable, and affordable Internet access for all users is an important national goal and that Internet penetration, particularly broadband access, should be significantly increased, in all areas of Jordan, particularly in rural areas. Government further declares that such access should be made available using both wired and wireless technologies and using a variety of Internet access devices, particularly those which provide mobile access.

In this regard it is worth mentioning that TRC granted 4G spectrum license to one of the mobile operators which in it turn will enhance the availability of Broadband services.

4.11. LEBANON – TRA

1. INSTITUTIONAL LAYOUT

TRA is the independent National Regulatory Authority with competences on economic regulation of electronic communication sector, referring to Telecom Law 431/ 2002.

The President of the Authority (whose term is for 5 non-renewable years) is appointed by the Council of Ministers upon the Minister's recommendation. TRA acts as a collegiate body with 4 members of the board and according to Telecom Law 431/2002, article 8 paragraph 2, the term of office of the Chairman or any Member shall be terminated by decree issued by the Council of Ministers upon the proposal of the Minister in case of serious violation of obligations or non-compliance with the conditions set forth in Article 7 above, after a Committee composed by the Chairman of the High Council of Magistrates, the Chairman of the State Consultative Council and the Chairman of the Public Audit Court and referred to by the Minister, establishes the facts by a decision taken by the majority.

TRA has 35 employees and its budget (autonomously defined and implemented) for 2014 came from Public sources.

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications sector.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Networks' security
- Allocation of spectrum
- Standardization of equipment

- Quality of service
- Consumer's protection
- Privacy and data protection

When it comes to TRA powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has TRA the power to request information from operators but also can it impose both behavioural and structural remedies.

Indeed, according to article 30 of Law 431: "The Authority shall ensure that a Public Telecommunications Service Provider with a significant market position may not abuse any such dominant market position. The Authority may restrict a Public Telecommunications Service Provider with a significant market position from obtaining additional Public Telecommunications Services Licenses or require compliance with regulatory, tariffing and accounting rules and other precautionary measures found by Authority to be consistent with competitive markets".

TRA decisions are directly enforceable and can be enacted without approval of the Minister or Government. Judicial appeals with full review of decisions are also possible.

The procedure adopted to enforce the Lebanese TRA's decisions is stated in law No. 431, dated July 22, 2002. This law provides that the TRA shall establish control and inspection regulations, subject to the approval of the Minister of Telecom, consistent with the provisions of the laws and regulations in force. Decree No. 14264 dated March 4, 2005 provided that a regulation covering control, inspection and imposition of penalties should be enacted within one year from the date the TRA commences work. The TRA commenced work during the first week of April 2007, but this regulation was never enacted by the Ministry.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable for Government.

Since there is no competition authority in Lebanon, coordination with other governmental institutions is informal and established upon need depending on the subjects (e.g.

coordination with the Ministry of Information for matters related to broadcasting is done through a common committee). Coordination is also needed with the Ministry of Finance and Ministry of Telecommunications for the preparation and submission of yearly budgets.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Individual licenses (multi-services)

According to article 19 of Law 431, License shall be issued by a decree adopted by the Council of Ministers upon the proposal of the Minister and subsequent to an international tender according to the Terms of Reference prepared by the Authority to the Providers of the following Public Telecommunications Services:

- Basic Telephone Services
- GSM Services.
- International Telephone Services.
- New Categories of Licenses for providing Public Telecommunications Services including local and international UMTS Services.

The Authority shall issue Licenses for the Providers of the following Telecommunications Services:

- Private Line Service.
- Public call offices and pay phones.
- Leased Line Services.
- Local and international telex and telegraph service.
- Internet services.
- Data services.
- Any other Telecommunications Service for which the Authority requires similar Licenses.

6. Rights of way, radio spectrum and Frequency management

TRA is empowered to grant rights of way and the approval of Government is not necessary to grant licenses. Additionally, NRA is the authority for frequency management, and secondary trading of spectrum is not allowed in Lebanon while refarming migration is allowed. A refarming plan has been prepared by the TRA and consulted on with concerned stakeholders, however the plan was not implemented due to the current situation of the TRA.

Lebanon has taken a decision on the digital dividend. Switch off of terrestrial broadcasting is planned for 2015 and they are studying the possibility of allocating part of UHF band for IMT.

The 2 networks owned by the Ministry of Telecommunications have deployed 3G on 3GPP Band II based on multiple carrier HSPA+. 3 Carriers are being used by each operator. The MPT deployed LTE based on 2x20Mhz in 1800MHz band III with plans to use 800MHz Band 20 once it is cleared from Broadcasting service. UMTS900 is in process to improve indoor broadband coverage. All Band 8 is being used by the two mobile operators including Extended-900. Additional spectrum in extended GSM was used to allow U900 deployment.

Prime Minister approves the granting process proposed by ARCEP and launch the beauty contest or auction. ARCEP choose the winning bidder(s).

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Lebanon identifies relevant markets and it does apply competition law principles. However, it does not identify operators with Significant Market Power (SMP). TRA may impose regulatory obligations on operators after periodically market review rounds.

The TRA has issued an SMP regulation, however due to the current situation of the TRA and the structure of the market (main providers are all state owned), the regulation was not implemented or applied. Therefore, remedies are not implemented in our market.

9. Regulatory remedies for TRA

The TRA has issued an SMP regulation, however due to the current situation of the TRA and the structure of the market (main providers are all state owned), the regulation was not implemented or applied. Therefore, remedies are not implemented in our market.

2013

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	-	-	-	-
Price control	-	-	-	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	-	-	-	-
Implementation of wholesale offers	-	-	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination &	Termination	Retail
Regulatory accounting separation	-	-	-
Cost accounting	-	-	-

Transparency	-	-	-
Price control	-	-	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	-	-	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	-	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ²⁷)	Broadband access (market 5 of the EC Recommendation ²⁸)	Retail	
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-

²⁷ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

²⁸ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Transparency	-	-	-	-
Price control	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	-	-	-	-
Collocation facilities	-	-	-	-
Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-
Bitstream wholesale offer	-	-	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers, addresses and names.

Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

Provision of access at a fixed location.

Directory enquiry services and directories (and for emergency services)

The « Universal Service » should be financed by a fund, but it has not been applied yet.

As claimed in Article 26 of Law 431:

- a. The Authority shall establish a plan to issue Licenses to provide Public Telecommunications Services so as to ensure the accessibility of Telecommunications Services to all the citizens in all the regions.
- b. The Licenses issued to Public Telecommunications Service Providers shall include specific obligations to provide extensive geographical coverage, provide voice, directory and emergency call services and provide options for Users with low usage requirements without any discrimination.

When applying for a License, such applicants shall demonstrate their technical and physical capabilities to fulfill such obligations for the duration of the License. Such Licensees shall be permitted to recover on an overall basis the net costs of compliance with such obligations through pricing arrangements that are approved by the Authority. In the event that such arrangements are insufficient to recover such costs, the Authority may establish other mechanisms to finance such costs, including a universal service fund comprised of contributions from other Public Telecommunications Service Providers.

However, this has not been applied yet due to the current situation of the TRA in Lebanon

The NRA is competent in the following areas

- Designation of the operator or operators with universal service obligations.
- Calculating the net cost of universal service provision.
- Implementation and management of the funding mechanism of universal service.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Lebanon, specific legislation to protect telecommunications' end users' rights has been adopted with the following items to ensure:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Data protection.
- Procedure for handling complaints by consumers.

Additionally, TRA is empowered to handle consumers' complaints even though regulation does not set a maximum initial duration of contract. Operators are obliged to publish their tariffs on their websites and TRA has a price comparison tool: <http://www.tra.gov.lb/Offers-and-Tariffs>.

14. Quality of service (QoS) and switching

In Lebanon, specific legislation to ensure quality of service on telecommunication services and networks has been adopted (<http://www.tra.gov.lb/QoS-Regulation>). Quality of service is required for any operator - except providers of private telecommunications services-.

Regarding switching, neither fixed nor mobile portability is available.

15. INTERNATIONAL ROAMING

In Lebanon, there is no regulation regarding international Roaming.

16.

17. PROMOTION OF BROADBAND

TRA has not adopted any measure to promote the deployment of NGAs' networks.

4.12. MALTA – MCCA

1. INSTITUTIONAL LAYOUT

MCCA is the independent National Regulatory Authority with competences on competition and regulation of electronic communication and postal sectors, referring to the Malta Communications Authority Act (Chapter 418). There is also the Office of the Information and Data Protection Commissioner (OIDPC) in matters relating to privacy and data protection.

The Authority chairman and the 4 members of the Board (whose term is for 3 renewable years) are appointed by the Minister and works as a collegiate body. Grounds of dismissal include:

- (a) if the member due to infirmity of mind or of body or of any other cause is effectively unable to continue to discharge his duties as a member;
- (b) if the behaviour or performance of the member brings into question his suitability or ability to continue as a member, in particular for behaviour that affects or may affect his reputation, independence or autonomy, or the reputation, independence or autonomy of the Authority;
- (c) if the member has been convicted of a criminal offence affecting public trust, or of theft or fraud, or of knowingly receiving property obtained by theft or fraud or of bribery or of money laundering, provided that the Minister may suspend the member if he is being investigated for a criminal offence; or
- (d) if member fails to perform his duties for a prolonged period without any valid justification.

Provided that notwithstanding the above, it shall be a cause for the removal of a member if that member for any reason fails to perform his duties, including attending for Board meetings, for a continuous period exceeding six months.

MCCA has 74 employees and its budget (autonomously defined and implemented) for 2014 was €5.04 million coming from the following resources:

1. Public sources (e.g. State and/or local budget) 20%
2. Regulated undertakings (e.g. administrative charges) 66%
3. Fees for spectrum and/or rights or use 14%

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Networks' security
- Allocation of spectrum
- Quality of service
- Consumers' protection

When it comes to MCCA powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has NRA the power to request information from operators but also can it impose both behavioural and structural remedies.

NRA can impose fines and penalties and judicial appeals with full review of decisions are possible. Additionally, MCCA decisions are directly enforceable. Please refer to MCA Act (Cap. 418) Part VI –

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=8884&l=1> -

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NRA can submit proposals for sectorial legislative amendments to the Parliament. However such proposals are submitted to the competent ministry for approval. The ministry then forwards the proposals to Parliament for approval.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable before

Parliament.

The extent of the action the MCA can take in relation to a consumer issue depends on the particular nature of the issue and the MCA's relevant legal powers. There are instances, such as for example, unfair commercial practices; misleading advertising; false pre-sale advice; unfair contractual terms; and others, over which the MCA currently has no jurisdiction and therefore cannot provide redress to consumers. In such cases, the MCA refers arising issues to the Consumer Authority which is the entity responsible from addressing such complaints.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Notifications

6. Rights of way, radio spectrum and Frequency management

MCCAA is not empowered to grant rights of way and the approval of Government is necessary to grant licenses. Government plays a role in the establishment of certain policy aspects of a frequency band, such as the fees to be levied. Additionally, NRA is the authority for frequency management, and both secondary trading and refarming migration of spectrum is allowed in Malta.

Malta has taken a decision on the digital dividend and the 800 MHz band has been allocated to deliver 4G services. The digital dividend band (790-862 MHz) is planned to be used for the provision of terrestrial electronic communications services. The technical conditions associated with this band are those established by Commission Decision 2010/267/EU.

Malta has already carried out a spectrum assignment process for the 900 MHz and 1800 MHz bands (220 MHz in total) in 2011. The rights of use include obligations for nationwide coverage. In July 2014 Malta published a policy covering the assignment of spectrum in the 800 MHz and 2.5 GHz bands. In line with this policy the assignment process will be initiated upon market demand. Malta completed the switchover to digital

terrestrial television in February 2011.

There have been positive developments as regards LTE in Malta, where Vodafone started to provide LTE commercial service in the course of 2013. Part of the spectrum in the 3.4 – 3.6 GHz band was assigned in 2005. The unassigned spectrum in 3.4 – 3.8 GHz band is available on the market, but so far there was no demand for the spectrum in question.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Malta identifies relevant markets and it does not apply competition law principles. MCCA also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds. The normal market analysis cycle is 3 years however an analysis can be extended if there are no significant changes in the market. On the other hand an analysis can be updated more frequently if the market exhibits significant changes.

9. Regulatory remedies for MCCA

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	-	x
Cost accounting	x	x	-	x
Transparency	x	x	-	x
Price control	x	x	-	-
Tariff rebalancing	-	-	-	-

Retail price cap control	-	-	-	x
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	-	x	-	-
Implementation of wholesale offers	x	x	-	-

MOBILE MARKETS				
	WHOLESALE			RETAIL
	Access origination	&	Termination	Retail
Regulatory accounting separation	-		x	-
Cost accounting	-		x	-
Transparency	-		x	-
Price control	-		x	-
Tariff rebalancing	-		-	-
Retail price cap control	-		-	-
Regulation of retail tariffs	-		-	-
Obligation of interconnection	-		x	-
Access to Mobile Virtual Operators (MVNOs)	-		-	-
Collocation facilities	-		-	-
Implementation of wholesale offers	-		x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ²⁹)	Broadband access (market 5 of the EC Recommendation ³⁰)	Retail	
Regulatory accounting separation	x	-	-	-
Cost accounting	x	-	-	-
Transparency	x	-	-	-
Price control	x	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	-	-	-
Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-
Bitstream wholesale offer	-	-	-	-

²⁹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

³⁰ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use **numbers, addresses and names**.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Public pay telephones.
- Directory enquiry services and directories.
- Measures for disabled users and those of low incomes.

Universal Service in Malta is not fund by an agreement on financing achieved between operators.

MCCAA is competent in the following areas

- Calculating the net cost of universal service provision.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.
- Designation of the operator or operators with universal service obligations.

A minimum set of electronic communication services essential for the general public to

participate in society, and those which are already available to the great majority of citizens. These services should be made available at just, reasonable and affordable rates ensuring that persons on low income, those residing in rural, insular, or high installation cost areas, persons with disabilities, and other vulnerable groups, have access to these services at reasonable prices.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Malta, specific legislation for consumer protection for Electronic communication services has been applied. In that sense, it deals with:

- Contract conditions for telecommunication services.
- Contract duration.
- Penalty payments in case of withdrawal.
- Procedure for handling complaints by consumers.
- Data protection.

Additionally, MCCA is empowered to handle consumers' complaints and regulation sets a maximum initial duration of contract, no longer than 24 months. It is important to highlight that periodical information on tariffs of telecom services is available here: <http://www.telecosts.com/>

In 2012, the MCA published a decision on subscriber contracts, which provides a number of end user protection measures intended to safeguard their rights.

<http://www.mca.org.mt/consumer/decisions/decision-subscriber-contracts>.

The MCA has recently published a report on complaints received during the first half of 2014.

<http://www.mca.org.mt/consumer/notices-and-announcements/end-user-half-yearly-report-jan-june-2014-0>.

14. Quality of service (QoS) and switching

In Malta, specific legislation to ensure quality of service on telecommunication services and networks has been adopted: <http://www.mca.org.mt/consumer/decisions/broadband-internet-quality-service-framework> for fixed/broadband providers.

In February 2013, the MCA published a decision which obliged all fixed broadband ISPs to collect and measure a set of QoS parameters as specified in the Decision. The Decision also established a number of parameters which would render measurements from different ISPs to be comparable. ISPs have insofar collected and presented report to the Authority. It is envisaged that later next year, ISPs would be obliged to publish the information in line with format established by the authority. The Decision does not state any minimum QoS performance which an ISPs has to achieve.

Regarding switching, MCCA is responsible for fixed and mobile portability.

15. INTERNATIONAL ROAMING

In Malta, international Roaming is regulated by EU-Guidelines.

- X Wholesale voice calls
- X Wholesale SMS
- X Wholesale data
- X Retail voice calls
- X Retail SMS
- X Retail data

16. PROMOTION OF BROADBAND

A number of measures have been taken to ensure that the ICT framework is conducive to investment by market players. In this regard the Malta Communications Authority (MCA) is in the process of ensuring ease of access for NGA infrastructure via the imposition of wholesale access obligation on the fibre network deployed by the incumbent. Furthermore, the MCA has also made available further spectrum for the deployment of

LTE networks.

Digital Malta Strategy: <https://digitalmalta.gov.mt/en/Pages/Home.aspx>

4.13. MOROCCO - ANRT

1. INSTITUTIONAL LAYOUT

ANRT is an National Regulatory Authority with competences regulation of telecommunications sector as well as Antitrust for Telecom referring to Act n°24-96 relating to the post and telecommunications promulgated by Dahir n°1-97-162 of august, 7th, 1997.

The General Director of ANRT is nominated by the council of ministers (chaired by the King of Morocco) under the proposal of the Head of Government.

ANRT take its orientations actions through the board of directors (chaired by the Head of Government) and settle disputes through management comity, it currently has 190 employees autonomously recruited.

ANRT budget (autonomously defined and implemented) for 2014 was 546 MDHS coming from:

- a. Fees for spectrum.
- b. Type approval of equipment and Declaration of Value added services
- c. Operator's contributions on Standardization and Training.

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Control the respect of obligations
- Resolution of disputes related to interconnections, sharing infrastructures and competition
- Numbering
- Allocation of frequencies
- Type approval of equipment

Supervision of quality of service of public networks

ANRT decisions (related to his competences as defined in the Telecommunications Act (Law n°24-96) are directly enforceable. The appeal made by concerned operator does not suspend the ANRT decisions, unless the appeal body finds that the ANRT exceeded its powers or did not respect the procedure, especially the rights of the operator.

ANRT can also impose administrative fines and penalties.

Decisions of the ANRT have a binding force once taken. And notified to those concerned. If not respected, the authority send a formal notice to respect the decision (the duration of the notice is generally 30 days except some urgent case).

ANRT may make proposals for texts (Law and Decree), to the government (General secretary of Government) which make public consultation and collects reviews of the various stakeholders involved in the concerned text, then the text is put in the system of adoption.

3. NRA's accountability & transparency

The NRA can make public consultations before adopting regulatory decisions.

The agency is working in cooperation with the High Authority for Audiovisual Communication (HACA), which was thus established under the Dahir n°1-02-212 of August 31, 2002. It is an independent administrative body responsible for regulating the broadcasting sector.

The cooperation is established especially within an Agreement on the harmonization of radio frequency allocation.

The ANRT inform also the Competition Council about the decision taken concerning settlement of competition dispute.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Licenses for specific services

In Morocco Licenses for the establishment and operation of public telecommunications networks occupying the public domain or using the radio frequency spectrum shall be delivered to any legal entity selected in a call for tender. The license is subject to the payment of a license fee.

6. Rights of way, radio spectrum and Frequency management

The approval of Government is necessary to grant licenses.

ANRT is the authority for all frequency management. Secondary trading of spectrum is not allowed in Morocco while reframing migration it is.

Morocco launch up on November 2014 a call for bid in order to grant 3 licenses for establishing and operating telecommunication network's using 4G technologies. These networks should use 3 frequencies bands: 800 MHz, 1800 MHz and 2,6 GHz.

ANRT is responsible for management and monitoring of spectrum, including for allocating spectrum linked to licenses and authorizations subject to payment of a fee. Spectrum fees are set by Ministerial decree.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Every three years, the ANRT establishes a decision on the definition of relevant markets. This decision may be reviewed in the period if the market demands it.

Currently, six (6) relevant market are defined by the ANRT:

- Market of termination of fixed telephony including restricted mobility
- Market of voice mobile termination
- Market of SMS termination
- Market of leased lines (wholesale)
- Market of wholesale access to physical infrastructures related to local loop (all

type of ULL)

- Market of wholesale access to civil engineering.

Each year, the agency defined, after consultation and gathering the necessary information from the operators, the operators with Significant Market Power on a relevant market.

9. Regulatory remedies for ANRT

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	-	x	-	-
Cost accounting	-	x	-	-
Transparency	-	x	-	-
Price control	-	x	-	-
Tariff rebalancing	-	-	-	x
Retail price cap control	-	x	-	-
Regulation of retail tariffs	-	-	-	x
Obligation of interconnection	x	x	x	-
Implementation of wholesale offers	-	x	x	-

MOBILE MARKETS		
	WHOLESALE	RETAIL

	Access origination	& Termination	Retail
Regulatory accounting separation	x	x	-
Cost accounting	x	x	-
Transparency	x	x	x
Price control	x	x	-
Tariff rebalancing	-	-	-
Retail price cap control	x	x	-
Regulation of retail tariffs	-	-	x
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	x	x	-
Implementation of wholesale offers	x	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ³¹)	Broadband access (market 5 of the EC Recommendation ³²)	Retail	

³¹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

³² As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is

Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	x	x	x	-
Unbundling of local loop	x	x	-	-
Collocation facilities	x	x	-	-
Sharing civil infrastructure	x	x	-	-
Wholesale offer for ducts	x	x	-	-
Bitstream wholesale offer	x	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers, addresses and names.

situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

Access at a fixed location.

Access to functional Internet services.

Public pay telephones.

Directory enquiry services and directories.

In Morocco, the universal service (US) is financed by Public Operator through a fund and some mechanism. The principle is "Play or Pay".

However, ANRT is competent in:

Designation of the operator or operators with universal service obligations.

Calculating the net cost of universal service provision.

Implementation of the funding mechanism of universal service.

Supervision of obligations related to the provision of universal service.

An interdepartmental committee called the "Committee of management of the Universal Service Telecommunications (CGSUT)", chaired by the Head of Government, is responsible for the definition and validation of the Universal Service programs (such as the PACT program : provide access to telephony and Internet at 9263 rural localities, the NAFIDA program : to facilitate access to and use these tools in the educational system; the INJAZ program : for students of second cycle university and PhD in fields of technology and science).

The FSUT is powered by contributions from telecommunications operators up to 2% of their turnover exclusive of taxes and of interconnection fees related to activities realized

under the concerned license.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Morocco, there is a law about consumer protection which includes a specific part about telecommunications' end users. Consequently, specific legislation to protect telecommunications' end users' rights was adopted, dealing with:

Contract conditions for telecommunication services.

Contract duration.

Penalty payments in case of withdrawal.

ANRT is empowered to receive complaints from Consumer associations, but even if it receives direct claims, it intervenes within the limit of its competences.

Operators are obliged to publish the tariffs whatever the support.

Tariffs are set freely in accordance with the law n ° 06-99 concerning freedom of prices and competition. However, ANRT assess these prices regarding the principle of fair competition.,

14. Quality of service (QoS) and switching

Monitoring the quality of service is achieved using two approaches:

Analysis dashboard KPIs (Key Performance Indicators) or those submitted on request of ANRT during significant or unusual events;

Launching campaigns field measurements for evaluating the quality of service as perceived by users.

Thus, the ANRT conducts regularly on the basis of significant samples, measurement campaigns and survey indicators QoS.

In order to ensure the representativeness of measurements and relevance of the results, each campaign is conducted on the basis of a significant sample (number of measurements, cities, services ...). The measurements are performed in an intuitive and random in a protocol of measures adopted by the ANRT, for an assessment of the quality of service, as actually perceived by the user.

Fixed and mobile portability is available in Morocco, however 1 day- switching is not yet possible.

In Morocco, The Decision No 10/06 of 4 October 2006 concerning the terms and conditions for the implementation of number portability regulates the system of portability. It contains an obligation to implement the portability of fixed and mobile numbers; specifies the procedure for applying for portability and provides the procedures for the management and exchange between operators. This decision was repealed and replaced by Decision No 01-11 of February 1, 2011 that expanded particular aspects of automated exchange and databases relating to portability. However, this Decision has been amended and completed by Decision No 09.12 of 6 December 2012.

15. INTERNATIONAL ROAMING

In Morocco, international Roaming is not regulated.

16. PROMOTION OF BROADBAND

ANRT adopt guidelines related to the FTTH access and the procedures to be followed by consumer in order to encourage the mutualization of infrastructures.

Plan to guarantee the access of all the citizens to broadband services is in progress for Morocco.

4.14. PALESTINE -MTIT

1. INSTITUTIONAL LAYOUT

MTIT acts as regulator, however is not an independent body for the telecommunication sector. As a matter of fact, Act No 15/2009 to create NRA has not enforced yet.

The budget of the ministry is resourced by the government, and NRA competences belong to the Ministry.

2. NRAs COMPETENCES AND POWERS (Ministry)

It has competence in Telecommunications, Broadcasting –only assigning spectrum-, Post sectors as well as in Promotion of IT & e-Government.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Networks' security
- Allocation of spectrum
- Standardization of equipment
- Quality of service
- Consumer's protection
- Privacy and data protection

The Ministry exercises these regulatory tasks even though MTIT has authority power to request information from operators.

The Ministry can exercise remedies - e.g Hadara the internet provider was functionally separated from the incumbent operator (PATEL)-.

NRA decisions are directly enforceable and judicial appeals with full review of decisions

are also possible.

NRA can submit proposals for sectoral legislation amendments to the Parliament. the Ministry through the cabinet has this role. The parliament is currently not active.

3. NRA's accountability & transparency (Ministry)

MTIT regulates the telecom sector completely except for the broadcasting it coordinates with the Information Ministry and Interior Ministry.

MTIT is accountable before Parliament and Government and it publish its decisions. It is compulsory to make public consultations before adopting regulatory decisions.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Licenses for specific services
- Individual licenses (multi-services)

The Ministry grants two types of license:

- 1- Individual license for operators
- 2- Class license for service providers

Planning for Unified licenses in near future.

6. Rights of way, radio spectrum and Frequency management

MTIT is empowered to grant rights of way and spectrum licenses -approval of Government is not necessary to grant licenses-. Individual licenses require cabinet approval.

MTIT is responsible for frequency management and refarming migration is allowed in Palestine.

Regarding Digital Dividend, it is still used for broadcasting analogue TV but a planning to

allocate it for mobile services in near future is under discussion.

The allocation and assigning frequencies is ruled by the Telcom law No 3/96 which says that the ministry shall allocate the needed frequencies to those licensees there license allowed them to use frequencies and an annex will be attached to the license explaining the frequency band and the assigned frequencies and the annual payment for the use of these frequencies, according to price regime decided by the cabinet.

There is no tendering for the frequency and no auctions. The tendering is for the service providing and if the service needs frequencies they will be allocated to the licensees and the will pay annual fees for the frequency use.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

MTIT does not define relevant markets and it does apply competition law principles. However, it does identify operators with Significant Market Power (SMP) and, consequently, it may impose regulatory obligations on operators.

9. Regulatory remedies for MTIT

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	x	x
Cost accounting	-	-	-	-
Transparency	-	-	-	-
Price control	x	x	x	for non-competitive services

Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	x	x	x	for non-competitive services
Obligation of interconnection	x	x	x	-
Implementation of wholesale offers	x	x	x	-

MOBILE MARKETS				
	WHOLESALE			RETAIL
	Access origination	& Termination		Retail
Regulatory accounting separation	-	-	-	-
Cost accounting	x	x	-	-
Transparency	-	-	-	-
Price control	x	x	-	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	x	x	-	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-	-
Collocation facilities	x	x	-	-
Implementation of	-	-	-	-

wholesale offers			
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BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ³³)	Broadband access (market 5 of the EC Recommendation ³⁴)	Retail	
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	-	-	-	-
Price control	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	-	-	-	-
Collocation facilities	-	-	-	-
Sharing civil infrastructure	-	-	-	-
Wholesale offer for ducts	-	-	-	-

³³ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

³⁴ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Bitstream wholesale offer	-	-	-	-
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10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Directory enquiry services and directories (and for emergency services)
- Directory enquiry services and directories.
- Public paytelephones.

The « Universal Service » is not financed by a fund.

The NRA is competent in the following areas

- Designation of the operator or operators with universal service obligations.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Palestine, there is no specific legislation to protect telecommunications' end users'

rights.

However, MTIT is empowered to handle consumers' complaints. Operators are obliged to publish their tariffs on their websites.

14. Quality of service (QoS) and switching

It stated in all license agreements that The licensee has to deposit a performance bond equal to 3% of their paid up capital as a grantee for the licenses quality of service obligations.

Regarding switching, neither fixed nor mobile portability is available.

15. INTERNATIONAL ROAMING

In Palestine, there is no regulation regarding international Roaming.

16. PROMOTION OF BROADBAND

MTIT has adopted measures to promote the deployment of NGAs' networks.

4.15. PORTUGAL - ANACOM

1. INSTITUTIONAL LAYOUT

ANACOM is the independent National Regulatory Authority with competences on postal and electronic communications sector, established under the Act approved by Decree-Law no. 309/2001 of 7 December (<http://www.anacom.pt/render.jsp?contentId=974442>). The Board can have up to 5 members and are appointed for a non-renewable term of five years.

ANACOM has 397 employees as of July 2014 and its budget (subject to ministerial approval) for 2014 was coming from 37% regulated undertakings and 61% fees for spectrum and rights of use.

BUDGET 2014 (Euros)

- Expenses - 44.581.500;
- Investment – 3.124.500;
- Income: 69.094.000;

2. NRAs COMPETENCES AND POWERS

ANACOM has competence in Telecommunications and Post sectors.

Regarding the telecommunication sector this authority is competent in

- X Market analysis
- X Imposition of obligations
- X Control of obligations
- X Resolution of disputes
- X Numbering
- X Networks' security
- X Allocation of spectrum
- X Standardization of equipment
- X Quality of service

X Consumers' protection

According to the Electronic Communications Law (ECL)[1], the NRA is charged with certain powers regarding market analysis and regulatory control (cfr. articles 55 to 85), under which can impose behavioural remedies (cfr. articles 66 and following and articles 77 and following), or even impose an obligation of functional separation (cfr. article 76-A). Consequently, ANACOM has authority to request information from operators and can impose behavioral and structural remedies.

As a matter of fact, the NRA may impose a) Financial penalties as provided for in this statutory instrument; b) Orders to cease or delay provision of a service or bundle of services which, if continued, would result in significant harm to competition, pending compliance with access obligations imposed (cfr. article 110).

It also has an advisory role to the Parliament or Government formally envisaged by law in the matters of competence.

3. NRA's accountability & transparency

Before approval or modification of any regulation whose issuance is under its competence, ANACOM must inform the respective minister of tutelage, the concessionary or licensed entities, operators, the various registered service providers and consumers associations of generic or specific interest in the area of communications, providing them access to the respective texts and ensuring that same are available on its website (article 11 of its statutes).

ANACOM is subject to the jurisdiction of the Audit Court, under terms of the pertinent legislation. Additionally, it has to submit to the Assembly of the Republic an annual report, also to be sent to the Government.

ANACOM is independent in the exercise of its functions, in the context of law, without prejudice to the guiding principles of communications policy set by the Government, according to constitutional and legal terms and the acts subject to ministerial tutelage under terms anticipated by law and in its statutes. So, without prejudice to its organic and functional independence, ANACOM is subject to tutelage by the member of Government responsible for communications and, when the case arises, by the Minister of Finance, under terms of ANACOM's statutes and all other applicable legislation.

Second, ANACOM pronounces itself on all matters within its area of responsibilities that are submitted to it namely by the Assembly of the Republic or the Government and may, on its own initiative, suggest or propose political or legislative measures in matters pertinent to its responsibilities (cfr. Article 7 of its statutes).

Further, ANACOM assists the Government, upon its request or on own initiative, in the definition of strategic guidelines and general policies for communications and the activity of communications operators, including the issuance of and the drafting of legislation in the field of communications.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

The general authorisation regime works as follows: undertakings which intend to provide electronic communications networks and services shall previously submit to the NRA a short description of the network or service they wish to initiate and shall give notice of the date upon which the activity is estimated to commence, submitting also such details as are necessary for their full identification under terms defined by the NRA.

6. Rights of way, radio spectrum and Frequency management

ANACOM is no empowered to grant rights of way. However it grant spectrum licenses while the Government approval is necessary to grant them. Additionally, ANACOM is responsible for frequency management and regarding Digital Dividend - 790-862 MHz band – Portugal took a decision on how to allocate it.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

ANACOM identifies relevant markets applying competition law principles and also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds.

9. Regulatory remedies for ANACOM

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x (PTC only)	-	-
Cost accounting	x	x (PTC only)	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	x	x	-	-
Implementation of wholesale offers	x	-	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	x	-
Cost accounting	-	x	-
Transparency	-	x	-

Price control	-	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	x	x	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	-	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ³⁵)	Broadband access (market 5 of the EC Recommendation ³⁶)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-

³⁵ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

³⁶ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	x	-	-
Sharing civil infrastructure	x	-	-	-
Wholesale offer for ducts	x	-	-	-
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

<p>ANACOM is responsible for:</p> <p>X Development of the National Numbering Plan.</p> <p>X Assignment of rights to use numbers, addresses and names.</p> <p>X Management and control of the rights to use numbers, addresses and names.</p>
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11. UNIVERSAL SERVICE (US)

<p>ANACOM is responsible for:</p> <p>X Provision of access at a fixed location.</p> <p>X Provision of access to functional Internet services.</p> <p>X Directory enquiry services and directories.</p> <p>X Public pay telephones.</p>
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X Measures for disabled users and those of low incomes.

NOS Comunicações S.A. is the designated Universal Service provider for a 5 years period (june 2014- june 2019) for the provision of “Connection at a fixed location to the public telephone network and access to publicly available telephone services at a fixed location”. The universal service provider was designated by a tender for the total amount of 11.971.176, 75 euros for the entire term of the respective contract.

PT Comunicações, S.A. is the designated universal service provider for a 5 years period for the provision of public payphones. The universal service provider was designated by a tender for the total amount of 12.333.000,00 euros for the entire term of the respective contract.

PT Comunicações, S.A. is the designated universal service provider for the provision of a comprehensive directory and of a comprehensive telephone directory enquiry service for a period of 1 year (extendable for an additional 6 month period), upon payment of 1 euro. The universal service provider has been designated by a direct adjustment due to the fact that no proposal was received under the public tender.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

Portugal adopted specific legislation to protect telecommunications’ end users’ right. In particular regulation deals with:

X Contract conditions for telecommunication services.

X Contract duration. Service providers also shall offer all users the possibility to subscribe to a contract with a maximum duration of 12 months.

X Penalty payments in case of withdrawal.

X Data protection.

X Procedure for handling complaints by consumers.

14. Quality of service and switching

In Portugal, Mobile operators and Universal service providers require a quality of service control, with established penalties for non-compliance.

On the other hand, ANACOM is responsible for fixed and mobile portability, which are available in one working day switch provider period.

15. INTERNATIONAL ROAMING

In Portugal, international Roaming is regulated as it follows:

- X Wholesale voice calls
- X Wholesale SMS
- X Wholesale data
- X Retail voice calls
- X Retail SMS
- X Retail data

16. PROMOTION OF BROADBAND

The Portuguese Government has adopted a comprehensive broadband plan, the "Digital Agenda for Portugal" (hereinafter "DAP", <http://www.portugaldigital.pt/index/>) to support the European Digital Agenda objectives, which was approved by Council of Ministers Resolution of 31 December 2012. The DAP sets three general targets regarding broadband development: i) Access to standard broadband for all in 2013; ii) Access to fast broadband (30 Mbps or more) for all by 2020; iii) Access to ultrafast broadband (100 Mbps or more) for at least 50% of Portuguese households by 2020. On its specific measures, see <http://www.portugaldigital.pt/medidas/>.

The compensation fund has been established by Law. According to that Law n. 35/2012 the compensation fund is under the administration of ANACOM.

4.16. SPAIN- CNMC

1. INSTITUTIONAL LAYOUT

CNMC is the independent National Regulatory Authority with competences on Telecommunications, Broadcasting – TV Transmission- and Post sectors as well as Content TV, Antitrust and Other public utilities (energy, railways and airports) referring to Act 3/2013, of June 4, on the creation of the National Markets and Competition Commission.

(<https://www.boe.es/buscar/doc.php?id=BOE-A-2013-5940>).

However, other public institutions also have competences on the telecom sector, in particular the Ministry of Industry, Energy and Tourism.

CNMC Chairman and 9 commissioners (members of the Board) are appointed for six years and their mandate cannot be renewed. CNMC acts as a collegiate body. The Chairman.

The Board operates through a Plenary session and two Chambers, depending on the issue being addressed.

- **The Competition Chamber**, composed by 5 members of the Board and chaired by the Chairman, Mr. José María Marín Quemada, is responsible for the enforcement of competition law and promotion of competition. The Chamber usually meets weekly.
- **The Regulatory Oversight Chamber**, composed by 5 members and chaired by the Vice-Chairman, Ms María Fernández Pérez, is responsible for the oversight, control and conflict resolution in the sector-regulated markets. The Chamber usually meets weekly.

According to Act 3/2013 and referring to its article 15 as for ground for appointment for members of the Council, terms are the following:

1. Council members, including the Chairman and Vice-Chairman, shall be appointed by the Government, by Royal Decree, at the proposal of the Minister of Economy and Competitiveness, from among persons of recognized standing and professional competence in the field of action of the Commission, following the appearance of the person proposed for the position before the corresponding Committee of the Congress of Deputies. Congress, through the competent Committee and by virtue of a resolution adopted by an absolute majority, may veto the appointment of the proposed candidate within one calendar month of receipt of the relevant communication. If at the end of this period there has been

no express declaration from the Congress, the corresponding appointments shall be deemed to have been accepted.

2. The term of office of the members of the Council shall be six years, without the possibility of re-election. Members of the Council shall be replaced partially every two years, so that no member of the Council remains in office for longer than six years.

Regarding grounds for dismissal, it is article 23 which explains causes of removal from the post:

1. Members of the Council shall cease to hold office upon:
 - a. Resignation accepted by the Government.
 - b. Expiry of their term of office.
 - c. A situation of incompatibility arising.
 - d. Having been convicted of a felony.
 - e. Permanent disability.
 - f. Dismissal decided on by the Government for serious breach of the duties of his office or breach of duty on incompatibilities, conflicts of interest or the duty of confidentiality. The dismissal shall be decided by the government, regardless of any penalty system that might apply, following investigation of the case by the Minister for the Economy and Competitiveness.
2. If a Director ceases to hold his post during his term of office, his successor shall be appointed for the time remaining until the date on which the departing Director's term of office would have expired. If such cessation occurs four years or more after appointment, the abovementioned limit shall not apply, and the successor shall be appointed for the full six-year period as generally provided.
3. Members of the Council to whom the causes of termination in points a) and b) of paragraph 1 apply shall continue to perform their duties until the corresponding Royal Decree announcing the cessation is published in the Official State Gazette.

The NRA has 515 employees as of 31th December 2014 (www.cnmc.es).

CNMC budget is autonomously defined but not independently implemented.

2. NRAs COMPETENCES AND POWERS

It has competence on Telecommunications, Broadcasting – TV Transmission-, Content TV and Post sectors as well as Antitrust and other public utilities (energy, railways and airports).

Regarding the telecommunication sector this authority is competent in:

- Market analysis.
- Imposition of obligations.
- Control of obligations.
- Resolution of disputes.

When it comes to CNMC powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority.

The NRA has the power to request information from operators.

Following EU regulation the main remedies that can be imposed by CNMC are:

- Obligation of transparency.
- Obligation of non-discrimination.
- Obligation of accounting separation.
- Obligations of access to, and use of, specific network facilities.
- Price control and cost accounting obligations
- Functional separation

Both, behavioral and functional separation remedies can be imposed by CNMC. According to the European Directives, structural separation must be authorized by EC. Not other structural remedies can be imposed.

NRA's decisions are directly enforceable and judicial appeals with full review of decisions are possible. Dispute settlement body is not a separated body from NRA.

Fines and penalties can be imposed by CNMC.

CNMC is entitled to impose administrative sanctions -see article 80 of the Telecoms Act 9/2014- in the scope of an infringement of its own competences. This enforcement power is subject to a legal sanctioning procedure as of applicable to others Public Administrations. The procedure is established in Regulations of the procedure for the exercise of sanctioning power approved by Royal Decree 1398/1993, of 4th August.

However, in the field of telecommunications, the maximum duration of the sanctioning

procedure shall be one year and the deadline for submissions will have no less than one month duration.

The fines imposed by the CNMC are intended to have a deterrent effect. The fines for very serious infringements -see art. 79.1.a) of the mentioned Telecoms Act- cannot be less than, neither higher than five times, the gross revenues obtained by the operator as a result of the infringement. In case that these criteria would be impossible to apply, the maximum fine that can be imposed is 20 million euro. For serious infringements the maximum penalty will be up to the double of the gross benefit obtained or 2 Million euro, and for minor infringements the maximum penalty can be of 50.000 euro.

CNMC is also empowered to impose other measures on the operators, such as the prohibition to operate and exploit networks in the case of very serious infringements.

On the other hand, CNMC holds the competence to impose penalty payments to ensure compliance with its own resolutions, as a mean of enforced execution of the administrative act –see Additional Provision 6th of the existing Telecom Act-.

CNMC can submit proposals for sectoral legislative but not at its own initiative.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published.

Accountable to the Parliament, CNMC is under a specific duty to present its annual report before the Parliament. Every three years CNMC shall also present an impact assessment of its action plans and the results obtained. The Chairman must appear at least annually before the Members of the Parliament to detail the basic courses of action and the plans and priorities of the institution for the future.

Even more, the Chairman shall appear before the corresponding Congressional or Senate Commission, prior request of them under its own Regulations.

On financials, CNMC is subject to inspection by the Government Comptroller's Office (IGAE), the body that performs the internal control of the state's public-sector economic and financial management. Permanent financial control is performed by a Delegated Auditor settled in the Commission.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Notifications

As in the repealed Telecoms Act 32/2003, the authorization to begin an electronic communication activity comes from the law. However, pursuant to Article 6.2 of the Telecoms Act of 2014 the interested undertakings for the provision of electronic communications networks/services must submit a prior communication of its intention to commence its activities to the Register of Operators. The undertaking can start its activity at the moment of the submission of the prior communication.

Upon notification, the undertaking is included in the Register of Operators. Among the information that the undertaking has to submit together with the prior communication, there is a responsible statement of compliance with the law and applicable regulations. Afterwards, CNMC shall confirm whether or not the notification fulfills with all the mentioned requirements, within the period of 15 days.

This decision is known as a resolution or official notification. In this resolution, the undertaking is informed of the need to comply with the law –general obligations/conditions-, the possibility of being imposed further obligations and the need to request and obtain a specific authorization for the use of radio frequencies and numbering resources.

When the notification does not comply with all the stated requirements, CMT shall issue a dismissal resolution, in which case, the undertaking would have to stop its activity.

Traditionally, this competence belonged to CNMC. However, under the Telecoms Act of 2014, the competence to manage the Register of Operators is attributed to the Ministry of Industry, Energy and Tourism, although this competence has not yet been transferred to the Ministry.

6. Rights of way, radio spectrum and Frequency management

CNMC is not empowered to grant rights of way given that it is the Government who plays a role on that issue, in particular the Ministry of Industry. Additionally, it provides the approval to grant licenses.

NRA is not the authority for frequency management, and both limited secondary trading

and refarming migration of spectrum are allowed in Spain.

Spain has taken a decision on the digital dividend. As a matter of fact, 800 MHz band will be used to provide mobile services, mainly to provide mobile broadband access (LTE).

The Ministry of Industry grants spectrum licenses. Usually they select one of these two methods (i) beauty contest or (ii) pure auction.

If method selected is auction doesn't have any special requirement only the price.

If method selected is beauty contest, the result depends on the operators commitments (coverage, investment, etc.).

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Spain identifies relevant markets and it does apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds.

Market analyses are renewed periodically, every 3 years.

9. Regulatory remedies for CNMC

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	X	X	-	X
Cost accounting	X	X	-	X
Transparency	X	X	-	X
Price control	X	X	-	-
Tariff rebalancing	-	-	-	-

Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	X	X	-	-
Implementation of wholesale offers	X	X	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access & origination	Termination	Retail
Regulatory accounting separation	-	X	-
Cost accounting	-	X	-
Transparency	-	X	-
Price control	-	X	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	X	X	-
Access to Mobile Virtual Operators (MVNOs)	X	X	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	-	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ³⁷)	Broadband access (market 5 of the EC Recommendation ³⁸)	Retail	
Regulatory accounting separation	X	X	-	-
Cost accounting	X	X	-	-
Transparency	X	X	-	-
Price control	X	X	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	X	-	-	-
Collocation facilities	X	-	-	-
Sharing civil infrastructure	X	-	-	-
Wholesale offer for ducts	X	-	-	-
Bitstream wholesale offer	-	X	-	-

³⁷ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

³⁸ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

		X		
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10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA has no responsibilities regarding numbering, addressing and naming.

11. UNIVERSAL SERVICE (US)

CNMC is responsible for:

- X Provision of access at a fixed location.
- X Provision of access to functional Internet services (access and data communications broadband downstream speed of 1Mbit per second).
- X Directories.
- X Public pay telephones.
- X Measures for disabled users and those of low incomes.

Universal service is financed by a fund in Spain.

CNMC is competent in calculating the net cost of universal service provision and implementing and managing the funding mechanism of universal service.

Provision of a fixed network + telephone service on a fixed location + broadband connection of 1 Mbps on a fixed location. Any end-user may reasonable request to the USP for the provision of a public communication network on a fixed location (either on a fixed or radio electric network) and/or functional Internet access and data communications broadband downstream speed of 1 Mbit per second. End-users may request the provision of broadband connection over a pre-existing fixed connection. In addition, end users have the right to publicly available telephone service. The USP shall fulfil with this obligation within the period of 60 days. When the USP cannot comply with the mentioned period of time, it must be done in the shortest time possible and automatically compensate by exempting the monthly connection payments fees in which that period has passed.

Directory enquiry services. The provision of directory enquiry services is not currently provided under the scope of US because, as the Ministry of Industry, Energy and

Commerce determined and the CNMC reported, those services are nowadays properly provided under by the market providers on competitive conditions.

Directories. All subscribers to fixed telephone service or mobile telephone service have the right to appear in the directory service and receive a copy of it. The right to be included is exercised through the telephone service providers' (also the right to be excluded), while the right to receive the directory shall be guarantee by the USP.

Public pay telephones in combination with other public's voice telephony access points: The USP shall ensure the provision of the existence of a sufficient supply of public pay telephones on a public domain. This offer must consists, at least, in one public pay telephone and one more per each 3.000 people, in each municipality of 1.000 or more people and one public pay telephone in each municipality of less than 1.000 people, where justified based on the criteria of minimum bid. It is up to each City Council to claim the USP all the necessary modifications to meet the criteria for the minimum bid, including the new terminal facility or location changes. The terminals must meet the minimum requirements set out in the regulations, such as: (i) provide for calls made to any telephone subscriber service available to the public including those free of charge, if applicable, (ii) allow free calls to the emergency number 112, (iii) allow service 24 hours a day, (iv) arrange in a visible place, adequate and updated information on the conditions of use and pricing information, (v) arrange collection of the communication at the end, and return the remaining credit on the basis of previously deposited coins, (vi) provide the option to pay by card coins and one terminal of each service point, (vii) allow free access to telephone directory service on subscriber numbers indicated in the cabin.

Moreover, the terminals and its supports must incorporate special accommodations or facilities to facilitate its use by persons with disabilities, such as: accessibility and usability and hearing and visual impairment.

Measures for disabled users. The CNMC does not have competences in all US issues. On this particular issue, the Ministry of Industry, Energy and Tourism (SETSI) is the competent body to establish the specific requirements to respond to the needs of disabled users. A summary of these specific requirements has been published by the Ministry in its web site.

Thus, the designated operator must ensure the existence of a sufficient supply and technologically up-to-date of specific terminals, which might be adapted to all different types of disabilities: blind or severely visually impaired users, deaf or severely hearing-impaired and/or phonation users, wheelchair users and/or people of a small stature.

Measures for users with low incomes: Social tariffs consist on a 70% discount on

connection fee and a 95% discount on subscription fee. The affordability criteria are measured with an income public indicator (IPREM). The social tariffs beneficiaries are retirees and pensioners with a yearly income lower than a threshold public indicator (120% IPREM).

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for CNMC, it has no competences on consumer protection for electronic communications services.

Additionally, CNMC is not empowered to handle consumers' complaints.

14. Quality of service (QoS) and switching

The regulation of the conditions of QoS in Spain is established in Orden IET/1090/2014, of 16th of June.

The Secretary of State for Telecommunications and Information Society (SETSI), -which belongs to the Ministry of Industry, Energy and Tourism-, is responsible for quality of service implementation and the monitoring of the quality of service in the sector, and specific aspects such as internet speed and other parameters.

At institutional level, there is a commission for the monitoring of the quality of service, with several constituted working groups, integrating representatives from the SETSI, operators associations, the universal service provider, consumer protection authorities and regional government's representatives.

The SETSI also publishes a quarterly reports monitoring the quality of fixed and mobile electronic communications services with the objectives of facilitating transparency, guaranteeing minimum levels of quality, regulating the inclusion of these requirements in the contracts, and the inclusion of due compensation mechanisms.

Regarding switching, CNMC is responsible for one-day mobile portability as it is so for fixed portability.

15. INTERNATIONAL ROAMING

In Spain, international roaming is regulated as it follows:

X Wholesale voice calls

X Wholesale SMS

X Wholesale data

X Retail voice calls

X Retail SMS

X Retail data

16. PROMOTION OF BROADBAND

Spain puts in place an incentive regulation in order to promote the deployment of NGAs' networks.

One of the goals of the different remedies imposed in the market 4 and 5 analysis is promote the deployment of NGA's Networks.

The Ministry adopted a plan to impulse the access of all de citizens to broadband services (Plan Avanza).

<https://www.planavanza.es/Paginas/Inicio.aspx>

4.17. SWITZERLAND – BAKOM/COMCOM

1. INSTITUTIONAL LAYOUT

BAKOM and ComCom are the independent body for telecommunications sector for tasks which are not in the responsibility of ComCom. Consequently, it has competences in telecommunications, Broadcasting (TV transmission), content TV, Post (partially) and Promotion of IT and e-Government (partially) with coordination of the Ministry referring to Law on Telecommunications (LTC) of 30 April 1997.

- Federal Communications Commission (ComCom)
- Competition Commission (COMCO)
- State Secretariat for Economic Affairs (SECO)
- Surveillance of Price

The directors of BAKOM as well as the President of the ComCom are elected by the Federal Council (7 members, Executive body of the Swiss Confederation). Usual grounds for dismissal as infringements of contract or general conditions and rules.

ComCom is a collegiate body whereas BAKOM is not. ComCom has 7 members of the Board and its number of employees is 4, while for BAKOM is 270 (including some ministerial tasks).

BAKOM has no autonomy to define its own budget neither on its implementation.

BUDGET 2014 (Euros): 48 M€ (including some ministerial tasks)

- Public sources 30%;
- Regulated undertakings (e.g. administrative charges) 40 %
- Fees for spectrum 30%;

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis – in cooperation with ComCom

- Imposition of obligations
- Control of obligations
- Resolution of disputes - only between end users and telecom/value added services operators; no dispute resolution between operators-.
- Numbering - including domain names-.
- Networks' security -in cooperation with other federal offices-.
- Allocation of spectrum
- Standardization of equipment
- Quality of service - universal service provider only-.
- Consumers' protection -partly; in cooperation with State Secretariat of Economic Affairs-.
- Privacy and data protection -partly, in cooperation with the Federal Data Protection and Information Commissioner-.

When it comes to NRA powers, the Ministry cannot give instructions to ComCom for the exercise of the tasks assigned to this authority. However, it can give instructions to BAKOM. Not only has the ANR the power to request information from operators (The operators have the obligation to disclose any information required by BAKOM) but also can it impose behavioral remedies. In a future revision of the law, structural ones might be added.

Additionally, NRA decisions are directly enforceable even though judicial appeals with full review of decisions are also possible. NRA can also impose administrative fines and penalties.

BAKOM can sanction an operator which infringes the applicable law, the licence or a decision having force of law. This operator may be required to pay an amount up to 10 percent of the amount of its average turnover in Switzerland in the last three financial years. When assessing the penalty, BAKOM shall take into account the gravity of the infringement and the enterprise's financial situation (Art. 60).

More relevant and common in practice are surveillance and legal remedies (Art. 58 ff). If BAKOM detects an infringement of the law, it may:

- a. call for the operator to remedy the infringement or take measures to prevent any

- repetition of it; the person responsible for the infringement must inform BAKO; of the measures it has taken;
- b. require the operator to surrender to the Confederation any revenue generated during the infringement;
 - c. make the licence subject to conditions;
 - d. restrict, suspend, revoke or withdraw the licence or restrict, suspend or totally forbid the activity of the legal or natural person responsible for the infringement.

3. NRA's accountability & transparency

It is not mandatory for the NRA to make public consultations before adopting regulatory decisions while it does for decisions to be published. NRA is accountable before Parliament and Government.

BAKOM (Federal Office of Communications) is on the one hand part of the Federal Department of the Environment, Transport, Energy and Communication (DETEC) which acts as the ministry. Therefore BAKOM has some ministerial tasks (especially legislation, market observation, conformity with telecom legislation). On the other hand BAKOM is the regulator for those tasks which are not within the responsibility of the Federal Communications Commission ComCom). BAKOM also acts on behalf of ComCom.

Federal Communications Commission (ComCom): The ComCom is the independent regulatory authority for the telecommunications market for the following tasks:

- Granting licences for the use of radio communication frequencies
- Award of universal service licences
- Laying down the access conditions (unbundling, interconnection, leased lines, etc.) when service providers fail to reach an agreement
- Approval of national numbering plans
- Fixing the terms of application of number portability and carrier selection
- Decisions about supervisory measures and administrative sanctions regarding the aforementioned tasks.

As provided for in law, the Commission instructs the Federal Office of Communications (BAKOM) to prepare its business and implement its decisions. The Commission has

moreover delegated some of its tasks to BAKOM.

There are other federal offices which have relevant tasks in the regulation of telecommunications:

- Competition Commission (COMCO): If the question of market dominance must be analysed, the Competition Commission (ComCo) has to be consulted.
- State Secretariat for Economic Affairs SECO: Cooperation with the SECO in the field of price indication in advertisements (relevant for all telecom services, especially Value Added Services and premium rate numbers), consumer protection, unfair competition as well as the evaluation of the impact of regulation on economy.
- Surveillance of Price: The Surveillance of Price has the right to give its opinion on all prices regulated by the regulator. If there is a disagreement between both authorities, the regulator has to justify why it is not following the opinion of the Surveillance of Price. If prices are not the result of fair competition and abusive and they are NOT within the responsibility of BAKOM, the Surveillance of Price can search for a conjointly agreement with the operator. If there is no agreement, the Surveillance of Price can fix the relevant prices.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Licenses for specific services

- Notification

In general, market entrance is free for Telecom operators, but they have to notify BAKOM of their activities. Furthermore they must indicate a correspondence address in Switzerland.

If they want to use radio spectrum, they have to apply for specific licenses. The use of numbering resources is also regulated to some extent.

6. Rights of way, radio spectrum and Frequency management

Spectrum has its own licensing management process.

BAKOM is not empowered to grant rights of way and the approval of Government is not necessary to grant licenses given the fact that Government does not play a role for granting spectrum licenses. Additionally, NRA is the authority for frequency management, and secondary trading of spectrum is not allowed in Switzerland while refarming migration it is. Switzerland has taken a decision on the digital dividend for LTE services.

In February 2012, the Federal Office of Communications (OFCOM), on behalf of ComCom, auctioned all mobile phone frequencies. In addition to the frequencies employed today using GSM and UMTS technology, additional frequencies were awarded in the 2600 MHz and 800 MHz ranges (the 'digital dividend').

The overall award of all mobile radio frequencies in a single auction was conducted successfully and generated total revenue in excess of CHF 996 million (approx. EUR 800 million). ComCom awarded the licences at the beginning of June 2012 to Orange, Sunrise and Swisscom.

Each of these three operators was able to acquire a future-proof spectrum allocation significantly larger than their previous one. Today, a large proportion of customers have already a smartphone and the data which is carried over mobile radio networks is doubling every 12 months.

The entry into force of the new mobile radio licences opens up the way for significant investment in the latest mobile technologies such as LTE (Long Term Evolution of UMTS). The early award of frequencies and a term which extends to the end of 2028 enable licensees to plan for the long term and make their investments on a solid basis.

In August 2014 the three mobile operators concluded successfully the refarming process in the 900 and 1800 MHz bands. The auction in 2012 resulted in changes in allocations in these bands, which made a refarming necessary.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Switzerland identifies relevant markets and it does apply competition law principles so as to define relevant markets. TRC also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP and

Market reviews solely on request of a market player (ex-post regulation).

Consultation of the Competition Commission (ComCo) is mandatory. If BAKOM disagrees with ComCo's expertise the difference has to be justified in BAKOM's final decision.

9. Regulatory remedies for BAKOM

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	x	x	X (partly)	-
Price control	x	x	X (partly)	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	X (universal service provider only)
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	X (also indirect interconnection)	X (also indirect interconnection)	-	-
Implementation of wholesale offers	x	x	X (partly)	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	-	-	-
Cost accounting	-	-	-
Transparency	-	X (on request)	-
Price control	-	X (on request)	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	-	-	-
Implementation of wholesale offers	-	X (on request)	-

BROADBAND MARKETS			
	WHOLESALE	RETAIL	MOBILE

	Infrastructure access (market 4 of the EC Recommendation ³⁹)	Broadband access (market 5 of the EC Recommendation ⁴⁰)	Retail	
Regulatory accounting separation	-	-	-	-
Cost accounting	-	-	-	-
Transparency	x	-	-	-
Price control	x	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation facilities	x	-	-	-
Sharing civil infrastructure	-	-	-	(X) Poles in rural areas
Wholesale offer for ducts	X	-	-	-
Bitstream wholesale offer	-	-	-	-

³⁹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

⁴⁰ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

- Development of the National Numbering Plan.
- Assignment of rights to use numbers, addresses and names.
- Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services (including broadband connection).
- Public pay telephones.
- Directories
- Measures for disabled users (services for hearing and visually impaired).

In Switzerland a fund can be set up if compensation is asked by the USP. The universal service (US) is not financed by a fund.

However, NRA is competent in:

- Designation of the operator or operators with universal service obligations.
- Calculating the net cost of universal service provision.
- Implementation and management of the funding mechanism of universal service.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

Consumers can choose between three types of connections (analogue, digital and broadband). These connections must allow calls, receiving and sending faxes and accessing the internet. The connection includes at least one telephone number and one directory entry.

A broadband connection must provide an internet connection at a minimum speed of 1000/100 kbit/s. In exceptional cases, this speed may be lower. In addition, the universal service licensee is not obliged to provide broadband access when a comparable alternative service is offered on the market by another operator. There is an ongoing review of the relevant decree which foresees to double the minimum internet speed up to 2000/200 kbits/s. The new decree will most probably enter into force at the beginning of 2015.

Some services (national calls on the fixed network, transcription services for the hearing impaired, supplement for the use of public payphones) and all three types of connection are subjected to price ceilings.

The Federal Communications Commission (ComCom) designated Swisscom as the universal service Provider from 1 January 2008 till end of 2017. Swisscom has refrained from applying for any financial compensation from the funding system.

Please note that the incumbent Swisscom is only partly privatized; the majority of shares (51.22 %) still belong to the Swiss Confederation.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Switzerland, specific legislation to protect telecommunications' end users' rights was adopted, dealing with:

Contract conditions for telecommunication services.

Data protection.

Procedure for handling complaints by consumers.

Additionally, BAKOM is empowered to handle with consumers' complaints and regulation does not set a maximum initial duration of contract.

BAKOM is not empowered (legally and by resources) to set up any comparison tools for telecom services. Some transparency and comparing tools are offered by private initiatives.

14. Quality of service (QoS) and switching

Consumer's will to switch operator decreased in 2013 – for mobile (from 276'247 in 2012 to 187'160 in 2013) as well as for fixed (82'846 to 66'917) numbers. Especially mobile operators have been successful to bundle services including unlimited traffic (calls and data) and to retain their clients, which explains the lower churn rates.

15. INTERNATIONAL ROAMING

In Switzerland, international Roaming is not regulated.

16. PROMOTION OF BROADBAND

Switzerland doesn't have a national broadband plan. However the authority promoted the deployment of NGA's networks in different ways. It invited leading actors of the industry to participate in mixed working groups on a voluntary basis.

c. The Round Table on fibre networks

The round table on fibre networks was launched in June 2008 by ComCom to discuss issues relating to the provision of households with fibre networks. ComCom wanted to prevent the creation of monopolies in this sector which would impede access for other telecommunications providers and obstruct competition. At the same time, construction of the network should be as efficient as possible, in order to allow economically feasible investment. A dozen heads of Swiss companies which are investing in fibre networks have taken part in nine Round Tables.

d. Working Group NGA

OFCOM created in 2011 a working group tasked with developing the fundamentals in order to help policy makers in municipalities, regions and cantons make their decisions. Representatives of telecommunications network operators, electricity utilities, associations, cantons and the federal administration compiled and published details of the availability of high-speed broadband products and services (www.broadbandmap.ch), the demand for these and decision aids for municipalities and regions (www.hochbreitband.ch).

Broadband access is included in the universal service obligation.

4.18. TUNISIA - INTT

1. INSTITUTIONAL LAYOUT

INTT is the independent National Regulatory Authority with competences on Telecommunications referring to Law of 2001-1 of January 15th, 2001.

There are other NRAs: Agence Nationale des Fréquences ; Agence Nationale de la Sécurité Informatique ; Agence Nationale de la Certification Electronique ; L'Office National de la Télédiffusion.

The President is appointed for 5 years with possibility of one renewal, and the authority works as a collegiate body with 7 members of the Board, with 3 years-term.

INTT has 60 employees and its budget (autonomously defined and implemented) for 2014 was 10 Million dinars.

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications sector.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Quality of service
- Consumers' protection

When it comes to INTT powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. Not only has NRA the power to request information from operators but also can it impose both behavioural and structural remedies (such as Cost accounting, transparency, regulation of retail tariffs, obligation of interconnection).

NRA can impose fines and penalties (sanctions and referral measures) and judicial appeals with full review of decisions are possible. Additionally, INTT decisions are directly enforceable.

NRA cannot submit proposals for sectoral legislative amendments to the Parliament.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable for Parliament and Government.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

Unified licenses (global)

Granting licenses is the responsibility of the TIC's Ministry.

6. Rights of way, radio spectrum and Frequency management

NRA is empowered to grant rights of way and the approval of Government is necessary to grant licenses. Additionally, licenses are approved by decree.

However, NRA has no authority for frequency management, and secondary trading is not allowed in Tunisia. On the other hand, refarming migration within the granted license is allowed in Tunisia.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Tunisia identifies relevant markets applying competition law principles and also identifies

operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds, every 3 years.

9. Regulatory remedies for INTT

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	-	-	-	-
Cost accounting	x	x	x	x
Transparency	x	x	x	x
Price control	x	x	x	x
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	x
Obligation of interconnection	x	x	x	-
Implementation of wholesale offers	x	x	x	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail

Regulatory accounting separation	-	-	-
Cost accounting	x	x	x
Transparency	x	x	x
Price control	x	x	x
Tariff rebalancing	-	-	-
Retail price cap control	-	-	x
Regulation of retail tariffs	-	-	x
Obligation of interconnection	x	x	-
Access to Mobile Virtual Operators (MVNOs)	-	-	-
Collocation facilities	x	x	-
Implementation of wholesale offers	x	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ⁴¹)	Broadband access (market 5 of the EC Recommendation ⁴²)	Retail	
Regulatory accounting	x	x	-	-

⁴¹ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

⁴² As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

separation				
Cost accounting	x	x	x	-
Transparency	x	x	x	-
Price control	x	x	x	-
Retail price cap control	-	-	x	-
Regulation of retail tariffs	-	-	x	-
Unbundling of local loop	x	x	-	-
Collocation facilities	x	x	-	x
Sharing civil infrastructure	x	x	-	x
Wholesale offer for ducts	x	x	-	-
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Assignment of rights to use numbers, addresses and names.

Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

NRA is responsible for:

- Provision of access at a fixed location.
- Provision of access to functional Internet services.
- Directory enquiry services and directories.
- Public pay telephones.
- Measures for disabled users and those of low incomes.

Universal service is financed by a fund in Tunisia, and the authority is competent in the following areas:

- Calculating the net cost of universal service provision.
- Supervision of obligations (rates, quality of services, etc.) related to the provision of universal service.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

Tunisia has not adopted specific legislation to protect telecommunications' end users' right.

Via Consumer protection organizations INTT is empowered to handle consumers' complaints and regulation sets a maximum initial duration of contract, no longer than 24 months.

It also obliges operators to publish their services on their website but the authority does not publish periodically information on tariffs on its website yet.

14. Quality of service (QoS) and switching

In Tunisia, there is specific legislation to ensure quality of service in the Tender specifications.

Regarding switching, in Tunisia there is neither fixed nor mobile portability available.

15. INTERNATIONAL ROAMING

In Tunisia, international Roaming is not regulated.

16. PROMOTION OF BROADBAND

No information available for this section.

4.19. TURKEY - ICTA

1. INSTITUTIONAL LAYOUT

ICTA is the independent National Regulatory Authority with competences on Telecommunications, Broadcasting – TV Transmission- and Post sectors, referring to Electronic Communications Law numbered 5809. Ministry of Transportation, Communication and Maritime is responsible for regulation of right of way. For the rest, NRA is responsible to regulate the telecommunication sector.

According to Article 67 of Electronic Communications Law numbered 5809, special budgeted Information Technologies and Communication Authority (ICTA) which has administrative and financial autonomy and which acts as public legal entity has been established with a view to exercise the authority and to perform tasks assigned by the Law.

According to Article 67 of Electronic Communications Law numbered 5809, personnel, in order to be appointed as Board members must be graduated from faculty or departments of electronic, electric-electronic, electronic and communications, industry, physics, mathematics, computer, telecommunications and business administration engineering for engineering field; faculty or departments of political sciences, economics and administrative sciences, economy, law, business administration for social sciences field; or they must be graduated as physicist or mathematician from the abovementioned faculties or departments; or from faculties abroad whose equivalency to the abovementioned faculties or departments are approved by the authorized bodies; or besides graduating from the specified departments, they must have studied for master's degree or doctorate in the mentioned fields; they must have sufficient knowledge and experience in occupational and electronic communications field, must have worked minimum ten years in public corporations or private sector, must meet the requirements specified under sub-paragraphs of (1), (4), (5), (6) and (7) of clause (A) of Article 48 of Law no. 657, and they must not have taken part in management or supervision bodies of any political party or if so, must have seceded thereof

According to the Law, as members of the board of EETT are appointed persons of high esteem, enjoying broad social recognition, and distinguished for their education and professional expertise in the technological, economic or legal science.

Chairman's and seven members of the board are appointed for five years and it can be renewed multiple times. According to Article 67 of Electronic Communications Law numbered 5809, President and members of the Board may be deposed before term of

office only in instances where they cannot perform their tasks due to any disease or illness or where they do not anymore meet the requirements for being appointed.

ICTA budget (autonomously defined and implemented) for 2013 1.722.807.000,00 TL (€586.048.576,38) coming from the following resources:

4. Authorization fee and fees for rights for use and license charge: 89.56%
5. Administrative charges: 6.75%
6. Administrative fine and interest revenue: 3.72%

2. NRAs COMPETENCES AND POWERS

It has competence in Telecommunications, Broadcasting – TV transmission- and Post sectors.

Regarding the telecommunication sector this authority is competent in:

- Market analysis
- Imposition of obligations
- Control of obligations
- Resolution of disputes
- Numbering
- Allocation of spectrum
- Quality of service
- Consumers' protection
- Standardization of equipment
- Networks' security
- Privacy and data protection

When it comes to ICTA powers, the Ministry cannot give instructions to the NRA for the exercise of the tasks assigned to this authority. But, at the same time according to the 45th provision of the decree law numbered 649 and dated 17.08.2012, the minister is entitled to audit performance and transactions of the national regulatory authorities in all aspects.

The NRA the power to request information from operators.

According to the article 19 of the Public Financial Management and Control Law dated 10/12/2003 numbered 5018, Grand National Assembly of Turkey approve the regulatory and supervisory bodies' budgets including ICTA. The Authority's decisions are enforceable directly without subject to an act from another authority. However according to the ECL, the Board shall publicize proper decisions by appropriate means foremost under internet environment. Regulatory Board Decisions as communique and by-law, after being consummated by the Board, shall be forwarded to the relevant Ministry and the Prime Ministry so as to be published in the Official Journal.

The Authority shall be entitled to monitor and inspect the adherence to the legislation, right of use and other authorization requirements; to charge operators with administrative fine with the amount up to three percent of the previous calendar year's net sales in case of non-adherence, to take necessary measures for the enforcement of national security, public order or public services properly and for the implementation of provisions enacted by laws, if necessary to take over facilities in return for compensation and to revoke the authorization in case of a gross fault or in case the authorization fee is not paid in due time. Nevertheless, the Authority shall take the opinion of the Ministry in instances where authorizations regarding electronic communications services which cover the utilization of frequency bands allocated in national scale and which need to be provided by a limited number of operators, are need to be revoked.

Fines are imposed by the relevant department according as to the authorization mentioned in the resolution of Board.

3. NRA's accountability & transparency

It is mandatory for the NRA to make public consultations before adopting regulatory decisions as does is it for decisions to be published. NRA is accountable before Government and Parliament.

Additionally, according to Article 67 of Electronic Communications Law numbered 5809, ICTA shall be audited by the Court of Accounts.

According to Article 5 and 6 of the Electronic Communications Law numbered 5809, Ministry of Transport, Maritime Affairs and Communications and ICTA are the competent bodies in electronic communications sector. The Ministry is mainly entitled to setting strategies and policies regarding electronic communications services and the Authority.

The Authority is entitled to create and protect competition, to arrange regulations pertaining to the elimination of practices which are obstructive, disruptive or limitative for competition, to this end to impose obligations on operators with significant market power in the relevant markets and on other operators when required, and to take measures stipulated by the legislation in the electronic communications sector. According to Article 6 of the Electronic Communications Law, ICTA shall be competent to supervise the breaches of competition in electronic communications sector which are against this Law and against regulations within the scope of this Law, to impose sanctions and to take the opinion of Competition Board on the issues regarding the breach of competition in electronic communications sector, if specified by the legislation.

- 1- The number of rights of use could only be limited when the resources need to be operated by a limited number of operators and for the aim of ensuring the efficient and effective use of resources. In case the quantity of right of use is limited:
 - a) The Ministry determines the criteria such as the authorization policy regarding electronic communications services which cover the assignment of satellite position and frequency band in national scale and which need be operated by a limited number of operators, starting date of the service, the duration of authorization and the number of operators to serve and the authorization is done by the Authority. Nevertheless, when deems necessary, the Ministry may open tenders directly on its own, for electronic communications services which cover the assignment of frequency bands in national scale and which need to be operated by a limited number of operators.
 - b) Necessary procedures pertaining to the performance of electronic communications services which are out of those mentioned in clause (a) and which need to be provided by a limited number of operators and/or to the construction and operation of electronic communications network and infrastructure shall be performed by the Authority.

The Authority, with a view to ensure the efficient use of resources, shall take necessary measures after consulting the Ministry and determine the procedures and principles of the tender.

The cooperation envisaged by the Law between ICTA and Turkish Competition Authority TCA with regards to competition problems and applications was enhanced through a

Protocol which entered into force on November 2nd, 2011.

According to the paragraph 2 of the Article 7 of the the Electronic Communications Law numbered 5809, TCA shall take into account primarily ICTA's views and regulatory acts while investigating and auditing and taking all decisions about the electronic communications sector. Also, in the paragraph 1 of the of the Article 6 of the same Law requires ICTA to take TCA's opinion on issues related to breach of the competition when prescribed by legislation. The cooperation envisaged by the Law between ICTA and TCA with regards to competition problems and applications was enhanced through a Protocol which entered into force on November 2nd, 2011. Under the referred Protocol , "Information Transfer", "Taking Views, Coordination and Cooperation" and "Final Notification" issues are set out in detail, and it is agreed that in January of each year, the Parties shall come together at the level of Vice President to discuss important issues and developments arising out of the implementation of the Protocol, and practices, operator activities, plans, investments and projections in the sector. Also, two authorities agreed to benefit from the other party's facilities for the education and training of personel; arrangement of training, seminars, workshops and similar activities.

4. MARKET ENTRANCE CONDITIONS IN ELECTRONIC COMMUNICATIONS

5. Authorization regime

- Notifications

Companies who are willing to provide electronic communications services and/or to construct and operate electronic communications networks or infrastructures shall notify the Authority of their intention prior to the commencement of their activities, within the frame of the Authority regulations.

When companies who have notified the Authority do not need the assignment of resources such as number, frequency and satellite position for electronic communications services and/or electronic communications network or infrastructure which they plan to provide and/or to operate; they shall be authorized pursuant to the notification to the Authority. In case they need assignment of resources they shall be authorized upon receiving the right of use from the Authority.

6. Rights of way, radio spectrum and Frequency management

ICTA is not empowered to grant rights of way. However, ICTA grants spectrum licenses and Government also plays a role for granting spectrum license.

Additionally, NRA is the authority for frequency management, and both limited secondary trading and refarming migration of spectrum is allowed in Croatia.

Turkey has taken a decision on the digital dividend. In Turkey, 470-862 MHz band can be used until 17/06/2015 (the date is set by ITU-RR) for analog television broadcasting. After analog switch off, 790-862 MHz (800 MHz) band is not planned to be used hereafter by broadcasting services and planned to be used for mobile services or services that meets Turkey's needs.

The last auction carried out in Turkey was IMT-2000/UMTS licenses in 2100 MHz band. After that, there has not been any award for mobile services realized.

7. REGULATORY FRAMEWORK FOR MARKET ANALYSIS

8. Relevant markets

Turkey identifies relevant markets and it does apply competition law principles. It also identifies operators with Significant Market Power (SMP). Consequently, it imposes regulatory obligations on operators with SMP after periodically market review rounds.

Market analyses are renewed in every three years, as a rule. However according to the secondary legislation (bylaw) on market analysis, ICTA may perform market analysis upon a well-reasoned application before the end of three year period.

9. Regulatory remedies for ICTA

FIXED MARKETS				
	WHOLESALE			RETAIL
	Access & origination	Termination	Transit	Retail
Regulatory accounting separation	x	x	-	-

Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Tariff rebalancing	-	-	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Obligation of interconnection	x	x	-	-
Implementation of wholesale offers	x	x	-	-

MOBILE MARKETS			
	WHOLESALE		RETAIL
	Access origination	& Termination	Retail
Regulatory accounting separation	x	x	-
Cost accounting	x	x	-
Transparency	x	x	-
Price control	x	x	-
Tariff rebalancing	-	-	-
Retail price cap control	-	-	-
Regulation of retail tariffs	-	-	-
Obligation of interconnection	x	x	-

Access to Mobile Virtual Operators (MVNOs)	x	-	-
Collocation facilities	x	x	-
Implementation of wholesale offers	x	x	-

BROADBAND MARKETS				
	WHOLESALE		RETAIL	MOBILE
	Infrastructure access (market 4 of the EC Recommendation ⁴³)	Broadband access (market 5 of the EC Recommendation ⁴⁴)	Retail	
Regulatory accounting separation	x	x	-	-
Cost accounting	x	x	-	-
Transparency	x	x	-	-
Price control	x	x	-	-
Retail price cap control	-	-	-	-
Regulation of retail tariffs	-	-	-	-
Unbundling of local loop	x	-	-	-
Collocation	x	x	-	-

⁴³ Market 4 is defined in the EC Recommendation of Relevant Markets (2007) as the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

⁴⁴ As defined in the EC Recommendation of Relevant Markets (2007), Market 5 comprises non-physical or virtual network access including 'bit-stream' access at a fixed location. This market is situated downstream from the physical access covered by market 4 listed above, in that wholesale broadband access can be constructed using this input combined with other elements.

facilities				
Sharing civil infrastructure	x	x	-	-
Wholesale offer for ducts	x	-	-	-
Bitstream wholesale offer	-	x	-	-

10. MANAGEMENT AND CONTROL OF PUBLIC RESOURCES: NUMBERING, ADDRESSING AND NAMING

NRA is responsible for:

Development of the National Numbering Plan.

Assignment of rights to use numbers, addresses and names.

Management and control of the rights to use numbers, addresses and names.

11. UNIVERSAL SERVICE (US)

In Turkey, there is no Universe Service Law.

12. CONSUMER PROTECTION AND QUALITY OF SERVICE

13. Consumer protection

As for Turkey, specific legislation for consumer protection for Electronic communication services has been applied. In that sense, it deals with:

Contract conditions for telecommunication services.

Contract duration.

Penalty payments in case of withdrawal.

Procedure for handling complaints by consumers.

Data protection.

Additionally, ICTA is empowered to handle consumers' complaints even though regulation does not set a maximum initial duration of contract.

Operators are obliged to publish periodically information on tariffs of telecommunication services.

14. Quality of service (QoS) and switching

In Turkey, quality of service on telecommunication services and networks are defined:

http://www.btk.gov.tr/mevzuat/yonetmelikler/dosyalar/EHS_HK_yonet.pdf (only available in Turkish).

Service control is required for legacy, incumbent/dominant/SMP operator, mobile and Universal service operators. Regulation establishes penalties for non-compliance with QoS standards. EETT periodically revises QoS parameters.

Regarding switching, ICTA is responsible for one-day fixed and mobile portability.

15. INTERNATIONAL ROAMING

In Turkey, international Roaming is not regulated.

16. PROMOTION OF BROADBAND

A number of measures have been taken to ensure deployment of NGA in Turkey and it has adopted regulation to guarantee the access of all the citizens to broadband services.

Acronyms List

4G/LTE	4G/Long Term Evolution
ADSL	Asymmetric Digital Subscriber Line
BEREC	Body of the European Regulators for Electronic Communications
CADPN	Central Administrative Database of Ported Numbers
DD1	Digital Dividend I
DSLAM	Digital Subscriber Line Access Multiplexer
EMERG	Euro-Mediterranean Regulators Group
FTTB	Fiber-To-The-Building o Fiber-to-the-Basement
FTTC	Fiber-To-The-Cabinet o Fiber-To-The-Curb
FTTH	Fiber-To-The-Home
FOTP	Fiber-To-The-Premises
FTTx	Fiber To The x
GDP	Gross Domestic Product
GSM	Global System for Mobile Communications
IMT	International Mobile Telecommunications
IP	Internet Protocol
ITU	International Telecommunications Union
KPIs	Key Performance Indicators
MENA	Middle East and North African countries
MNOs	Mobile Network Operators
NATP-3	New Approaches to Telecommunications Policy
NGA	Next Generation Access
NP	Number Portability
NRA	National Regulatory Authority
QoS	Quality of Service

RIO	Reference Interconnection Offer
RSPP	Radio Spectrum Policy Programme
SMP	Significant Market Power
UMTS	Universal Mobile Telecommunications System
USO	Universal Service Obligation
USP	Universal Service Provider
VDSL	Very-high-bit-rate Digital Subscriber Line
VoIP	Voice over IP
WiFi	Wireless Technology
WiMAX	Worldwide Interoperability for Microwave Access
WLAN	Wireless Local Area Network
xDSL	x Digital Subscriber Line

Acronyms List

4G/LTE	4G/Long Term Evolution
ADSL	Asymmetric Digital Subscriber Line
BEREC	Body of the European Regulators for Electronic Communications
CADPN	Central Administrative Database of Ported Numbers
DD1	Digital Dividend I
DSLAM	Digital Subscriber Line Access Multiplexer
EMERG	Euro-Mediterranean Regulators Group
FTTB	Fiber-To-The-Building o Fiber-to-the-Basement
FTTC	Fiber-To-The-Cabinet o Fiber-To-The-Curb
FTTH	Fiber-To-The-Home
FOTP	Fiber-To-The-Premises
FTTx	Fiber To The x
GDP	Gross Domestic Product
GSM	Global System for Mobile Communications
IMT	International Mobile Telecommunications
IP	Internet Protocol
ITU	International Telecommunications Union
KPIs	Key Performance Indicators
MENA	Middle East and North African countries
MNOs	Mobile Network Operators
NATP-3	New Approaches to Telecommunications Policy
NGA	Next Generation Access
NP	Number Portability
NRA	National Regulatory Authority
QoS	Quality of Service

RIO	Reference Interconnection Offer
RSPP	Radio Spectrum Policy Programme
SMP	Significant Market Power
UMTS	Universal Mobile Telecommunications System
USO	Universal Service Obligation
USP	Universal Service Provider
VDSL	Very-high-bit-rate Digital Subscriber Line
VoIP	Voice over IP
WiFi	Wireless Technology
WiMAX	Worldwide Interoperability for Microwave Access
WLAN	Wireless Local Area Network
xDSL	x Digital Subscriber Line