MALTA COMMUNICATIONS AUTHORITY

# Addendum to the MCA's Consultation of 16 August 2013: Bottom Up Cost Model for Mobile Networks and Proposed Mobile Interconnection Pricing

*Further Consultation*

## Consultation Document

MCA/C/13-1675

## Publication Date:

23 AUGUST 2013

## Closing Date for submission of responses:

20 SEPTEMBER 2013 – AT 12.00PM CET

Malta Communications Authority
Valletta Waterfront, Pinto Wharf, Floriana, FRN 1913
Tel: (+356) 21 336 840 Fax: (+356) 21 336 84

# EXECUTIVE SUMMARY

This document is an addendum to the consultation issued by the MCA on 16 August 2013, entitled 'The MCA's Bottom-up Cost Model for Mobile Networks and Proposed Mobile Interconnection Pricing'.

On 17 August 2013, following the publication of the said consultation document, Vodafone Malta Limited sent an early response requesting the Authority to consider a glidepath towards the modelled rate. Amongst others, Vodafone Malta's motivations were spurred by the fact that the calculated rate was significantly lower than expected. Vodafone Malta proposed also that the duration of this glidepath should be set at twelve-months.

This addendum is therefore seeking the views of interested parties on a potential additional glidepath (see section 2.2) to the modelled rate of 0.4 Euro cents per minute.

This document should therefore be read in conjunction with the MBUCM public consultation document (MCA/C/13-1646). This addendum is being published in order not to delay the consultation process during future stages.

## CONSULTATION

In view of this addendum, the consultation period of the public consultation ending on 6 September 2013, is being extended to 20 September 2013.

Submissions to the MBUCM public consultation document and this addendum may therefore be forwarded to the MCA by not later than 20 September 2013. Details for submitting comments are explained in Section 4.

As required by Regulation 7 of the Electronic Communications Networks and Services (General) Regulations, 2011 (Article 7 of the Framework Directive), the MCA's proposals will be notified to the European Commission ( hereafter 'EC' or 'Commission') and to other National Regulatory Authorities (hereafter 'NRAs') after the end of this national consultation.

# TABLE OF CONTENTS

# 1. INTRODUCTION

On 16 August 2013, the Malta Communications Authority (hereafter 'the MCA' or 'the Authority') published a consultation document entitled 'The MCA's Bottom-up Cost Model for Mobile Networks and Proposed Mobile Interconnection Pricing'[1] (hereafter the public consultation'). This document proposed a wholesale mobile termination rate (hereafter 'MTR') based on the Authority's newly developed Bottom-up Cost Model (hereafter 'MBUCM') of 0.40 Euro cents per minute.

Following the issuance of this public consultation, on 17 August 2013 Vodafone Malta Limited (hereafter 'Vodafone Malta') sent an early response requesting the MCA to consider a glidepath of twelve months towards the modelled rate.

To this effect the MCA is publishing this addendum to the public consultation document (hereafter 'the addendum') asking Interested Parties to comment on the potential introduction of a glide path. This addendum gives also details of Vodafone Malta's motivations for this request followed by the MCA's views on the matter

This addendum should be read in conjunction with the MBUCM public consultation document (MCA/C/13-1646).

[1] http://www.mca.org.mt/consultations/mcas-bottom-cost-model-mobile-networks-and-proposed-mobile-interconnection-pricing

# 2. AMENDMENTS PROPOSED

## 2.1 VODAFONE MALTA'S PROPOSAL FOR A GLIDEPATH

In Vodafone Malta's early response sent on 17th August 2013, amongst other comments, Vodafone Malta's proposal was motivation by the fact that although the Company 'has long expected and planned for the implementation of a pure LRIC MTR,...there was never the expectation that the lowest possible MTRs in the EU would be proposed for this market.' Vodafone Malta also commented that 'such a drastic reduction cannot but have a significant impact'. Vodafone Malta proposed that the duration of this glidepath should be set for 12 months.

## 2.2 MCA'S VIEWS

At the outset, the MCA would like to remind Vodafone Malta, that although in its proposal, the glidepath is being referred to as a new measure, MTRs in Malta are already set on a glidepath. In fact, in June 2012 the MCA published a decision notice entitled 'Interim Review of Wholesale Mobile Termination Rate - Response to Consultation & Decision'[2] (hereafter '2012 MTR decision'), which set an interim rate of 2.07 Euro cents per minute, based on an indicative target rate[3] of 1.03 Euro cents per minute. This Decision stated also the MCA's intention to substitute this indicative target rate with a model-based rate.

The MCA is therefore of the view that the market was given ample visibility of regulatory process related to mobile termination rates.

With respect to Vodafone Malta's comments on the variance of the MBUCM rate with those recorded in Europe thus far, following the finalisation of the model, the MCA commissioned Analysys Mason to study the cause of these differences. This study, which is being published as an annex to this document, concluded that this variance emanates from specific factors unique to the Maltese market, such as:

- high level of coverage in mobile networks in Malta;
- voice usage relatively low by European Standards;
- large parts of the network deployment that are driven by data service availability are unaffected by the presence of voice termination traffic; and
- the majority of switching deployments provide sufficient capacity for all usage.

[2] http://www.mca.org.mt/decisions/interim-review-wholesale-mobile-termination-rate-response-consultation-decision-june-2012

[3] Based on the average of the pure LRIC rates recorded in Europe at that time

This study concluded also that these unique factors themselves dilute the relevance of any comparisons with other European countries significantly.

The MCA however appreciates that operators might have based their budgets and projection on the assumption that the new MTR would be closer to the indicative target rate mentioned in the 2012 decision, which is significantly higher than the proposed MTR based on MBUCM. For this reason it is requesting feedback from interested parties on the potential introduction of the modified glide path found hereunder.

## PROPOSED MODIFIED GLIDEPATH

| | Step 1 | Step 2 |
|---|---|---|
| From | 1 December 2013 | 1 June 2014 |
| To | 31 May 2014 | Onwards |
| Price (EUR cent/min) | 1.03 | 0.40 |

In Step 1, the proposed glide path features the indicative target rate proposed in the 2012 Decision for a period of six months after which the proposed rate emanating from the MBUCM model will come into effect as from 1 June 2014.

## 2.3 CONSULTATION PERIOD

In view of this addendum, the consultation period for the public consultation on MBUCM ending on 6 September 2013 is being extended to 20 September at 12.00pm.

# 3. CONSULTATION QUESTIONS

The MCA invites comments from interested parties on this addendum to consultation document of 16 August 2013 (MCA/C/13-1646). Comments which are not specifically dealt with in this Consultation but are directly related to the subject matter under this review are also welcome.

Interested Parties are invited to comment on:

- the introduction of the modified glide path; and
- the timelines proposed therein.

For the sake of clarity and ease of understanding, the MCA encourages stakeholders to structure their comments in order and in line with the section numbers and sub-section numbers used throughout the MBUCM public consultation document published on 16 August 2013 and this addendum.

# 4. SUBMISSION OF RESPONSES

In accordance with its obligations under article 4A of the Malta Communications Authority Act [Cap. 418 of the Laws of Malta], the Authority welcomes written comments and representations from interested parties and stakeholders during the national consultation period which shall run from the 23/08/2013 to the 20/09/2013.

The Authority appreciates that respondents may provide confidential information in their feedback to this consultation document. This information is to be included in a separate annex and should be clearly marked as confidential. Respondents are also requested to state the reasons why the information should be treated as confidential.

For the sake of openness and transparency, the MCA will publish a list of all respondents to this consultation on its website, up to three days following the deadline for responses. The Authority will take the necessary steps to protect the confidentiality of all such material as soon as it is received at the MCA offices in accordance with the MCA's confidentiality guidelines and procedures[4]. Respondents are however encouraged to avoid confidential markings wherever possible.

All responses should be submitted to the Authority, in writing by no later than 12.00hrs on 20 September 2013 and addressed to:

Ian Agius,
Chief of Operations

Malta Communications Authority
Valletta Waterfront, Pinto Wharf,
Floriana, FRN1913
Malta.
Tel: +356 21 336 840 Fax: +356 21 336 846
Email: coo.mca@mca.org.mt

[4] http://www.mca.org.mt/sites/default/files/articles/confidentialityguidelinesFINAL_0.pdf

# ANNEX 1 - PURE LRIC RESULT FROM THE MALTESE MOBILE MODEL

# Pure LRIC result from the Maltese mobile model

FINAL 23 August 2013 • 36393-343

## 1 Introduction

The MCA has developed a bottom-up mobile network long-run incremental cost model for the purposes of setting mobile termination rates for the Maltese operators in the coming regulatory period. This model calculates 'traditional' LRIC+ results per incoming minute of traffic (as well as other services) and also the Pure LRIC result (based on the methodology described in the EC Recommendation from 7 May 2009) per incoming minute.

A number of NRAs in Europe have produced similar models for their respective purposes, and the majority of pure LRIC cost results are observed in the approximate range of EUR0.75 cents to EUR1.25 cents.

The MCA's model produces a pure LRIC result for incoming traffic which is significantly outside of the range mentioned above.

The MCA would like further explanations on the reason for its particularly low pure LRIC result, for its own internal understanding and to communicate to other parties (e.g. MNOs, the EC) on this 'outlier' situation. In this context, it is also important to bear in mind that the LRIC+ result in Malta is not an outlier and is similar to other European countries.

This document is structured as follows:

- introduction to the specific characteristics of Malta; and
- brief conclusions on why the result in Malta is a low outlier compared to other EU nations.

## 2 Specific characteristics of Malta

Similar to other European nations, there is a high level of expectation of good indoor mobile coverage in Malta. Tourist visitors to the islands from other EU nations will also bring with them their expectations of good indoor mobile coverage from their home countries. However, providing good indoor coverage in Malta is particularly difficult due to three reasons:

- many buildings in Malta are constructed using local sandstone with very thick walls, arranged on narrow streets;
- many of the most densely populated areas are also within around 14 square km of urban conservation areas[1] – in these areas, tall buildings are limited and undesired. Conservation

[1] Source: Malta Environment & Planning Authority, Environment Report 2008, www.mepa.org.mt/file.aspx?f=4485

rules will also limit the use of unappealing high steel towers and masts, therefore 'clutter-limited' rooftop and on-building antennas are relatively common; and

- by comparison to the rest of Europe, Malta is a 'hilly' country (similar to Austria and Switzerland). This makes it harder for wide area coverage to be achieved, due to terrain blocking and steeply sloped towns and suburbs. The relative hilliness of Malta has been calculated by Analysys Mason in the simple measure shown in Figure 1, which expresses the ratio between the *highest point in the country* divided by the *radius of a circle with the area of the country*[2].

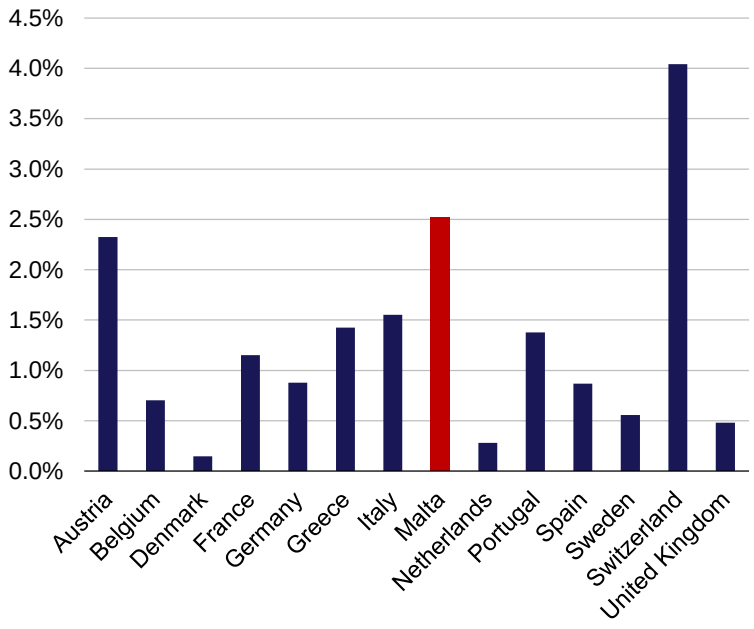


*Figure 1: Hilliness ratio [Source: Analysys Mason, 2013]*

Malta is also the most densely populated country in the EU (1,261[3] people per square km), around three times as dense as the Netherlands, four times as dense as Belgium and eleven times as dense as the EU27 Average[4]. This means that there should be a relatively average high traffic density compared to other EU nations. However, mobile usage in Malta is amongst the lowest in Europe (less than 1,400 minutes per person in 2012[5]), two-thirds of the simple average level in Europe (just over 2000 minutes per person per year). This is highlighted in Figure 2. Furthermore, because of its small size and demographic characteristics, the population (and consequently mobile minutes) in Malta is highly mobile on a daily basis. This means that, in essence, each minute of traffic requires a large amount of nationally available coverage to be provided, and high levels of mobility distribute the busy hour around the country.

2 This simplification assumes every country is shaped like a cylindrical cone, but it serves for the purpose of this comparison. Area and maximum elevation information is available from many sources on the internet including Eurostat, Wikipedia, etc. The maximum elevation in Malta is 253m, and the effective circular radius of the area of Malta is 10km.

3 Excluding city states Monaco and the Vatican City. Source: Wikipedia based on Eurostat data

4 Source: Eurostat

5 Expressed per population to remove the effects of multiple subscription rates in different European countries

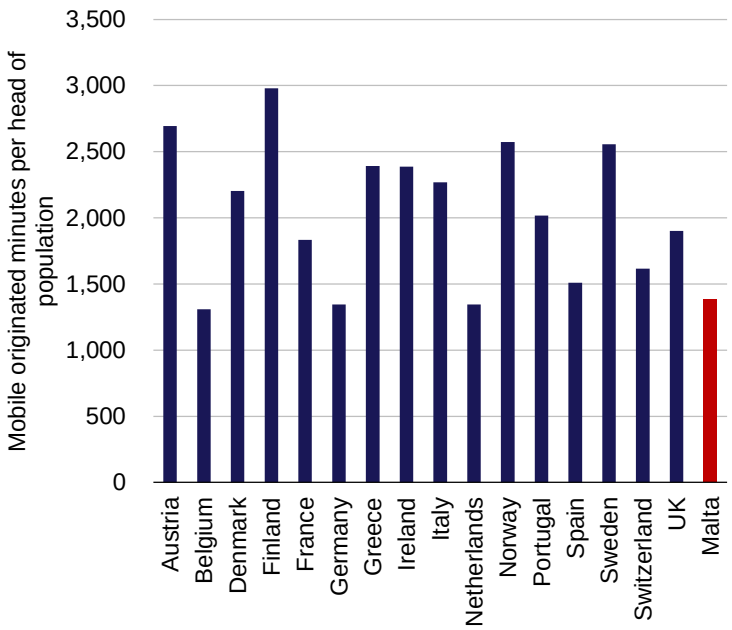


*Figure 2: Mobile usage in 2012 [Source: Analysys Mason Telecoms Market Matrix, MCA statistics, Eurostat, 2013]*

There are three mobile networks in Malta (plus 2 hosted MVNOs), serving the population of around 420 000, plus roaming visitors in the tourist season. There are implications from this small scale on the required network deployments of these operators, in particular for mobile switches and servers, which are primarily designed by vendors for the purposes of large countries with millions of subscribers. For the operators in Malta, often one switch or server (carrier grade, international vendor) provides enough capacity to serve more than the operator's entire customer base. Furthermore, geo-redundancy and resilience requirements may mean that two such switches are deployed in the network. This means that the minimum deployment of equipment is typically a large fixed cost.

In Malta, there are two GSM networks and three UMTS networks. Each of the three operators has 2x20MHz of 2.1GHz spectrum. GO has 35MHz in the 900MHz and 1800MHz bands combined, Vodafone has 40MHz of in the 900MHz and 1800MHz bands combined, and Melita has 5MHz in the 900MHz band. This means that two operators, GO and Vodafone, share the majority of GSM spectrum. Although the generic operator is modelled with an efficient amount of spectrum, the actual operators' networks have all developed with relatively large amounts of 2G and 3G spectrum by typical European standards (i.e. as only 2-3 networks are present in Malta compared to 3-4 networks in many other countries). The implication of having relatively large amounts of spectrum is that capacity constraints are less of an issue, and coverage is a more important factor in the development of the networks.

## 3 Conclusions

Based on the high level information presented in this document, we can conclude on the situation in the Maltese mobile LRIC model that:

- the pure LRIC of voice termination traffic is much lower than observed in other, much larger, European countries because of the following key factors:
    - mobile networks in Malta are characterised by high levels of coverage, which is particularly challenging to achieve, subject to specific local factors, and expected by the local and visiting customer base; the model principles agreed for the MBUCM were that actual levels of coverage should be modelled as opposed to less-than-actual coverage;
    - voice usage is relatively low by European standards;
    - large parts of the network deployment that are driven by data service availability (e.g. 3G sites and carriers, 100Mbit/s backhaul, RNCs, dark fibre, 1G transmission) are unaffected by the presence of voice termination traffic and so not part of the incremental cost; and
    - the majority of switching deployments are made in the minimum geo-redundant configuration of 2 units, and this provides sufficient capacity for all usage. Consequently, there is little contribution to the incremental cost from the large modular capacities of switches and servers.
- The key factors identified above dilute significantly the relevance of comparison with the featured range of pure LRIC results in other Member States, since by definition they reflect the specific differences observed in the Maltese market when compared with its European counterparts.