



ERG (07) 85

# International Roaming

ERG benchmark data report for  
April to September 2007

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## Section 1

# Executive Summary

1.1 The Regulation on international roaming services (Regulation (EC) No 717/2007<sup>1</sup>) has generally been implemented with a high level of compliance in all EU Member States. All consumers have access to a Eurotariff with capped maximum rates. Information gathered by the European Regulators Group (ERG) also suggests that wholesale charges (set between operators) are reducing in line with expectations.

1.2 Retail price information is now widely available. The majority of providers have taken significant steps, in line with the requirements set out in the Regulation, to actively provide tariff information to consumers in a way that had not been done before.

1.3 However, some providers, particularly smaller providers, have faced significant technical problems in meeting some requirements of the Regulation, particularly in relation to the provision of roaming rates via “push” SMS services. National Regulatory Authorities (NRAs) are continuing to monitor developments closely to ensure that the remaining small number of compliance problems are resolved speedily.

### ERG Benchmark report

1.4 This report covers the first comprehensive data collection ever undertaken on European international roaming services since the new Regulatory Framework has been in place. This and subsequent reports will provide information on the evolution of wholesale and retail roaming services, providing as far as possible information on both voice and data services. The intention is to provide a sound evidence base for the Commission’s review of the Regulation, required by the end of 2008.

1.5 During the period April to September 2007 covered by this report, there was already evidence of a decline in average wholesale and retail roaming prices despite the fact that the Regulation was only fully in effect at the very end of the period. Average SMS and data roaming charges displayed considerable variation across Europe during this period. A similar picture is revealed for roaming charges for non-EU calls.

1.6 There was also an indication that billed roaming minutes exceeded actual elapsed minutes by a significant margin (typically 20% at the retail level) as a consequence of the practice of many providers of adopting a minimum charging interval of up to 1 minute at both the wholesale and retail level.

1.7 While it is too early to draw many firm conclusions from this report, the ERG will be studying trends in these and other roaming charges in its subsequent reports. Differences between different customer segments will also be studied.

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<sup>1</sup> [http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l\\_171/l\\_17120070629en00320040.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_171/l_17120070629en00320040.pdf)

## Section 2

# Introduction

2.1 The European Regulators Group (ERG) has been at the forefront of tackling the long standing issue of high prices for international roaming services. In 2005, ERG undertook a study of international roaming that concluded that the EC Regulatory Framework did not provide the necessary tool-kit for NRAs to tackle the problems identified. ERG wrote to the Commission in December 2005 highlighting its concerns.

### **The Regulation**

2.2 On 8 February 2006, Commissioner Reding announced an intention to Regulate International roaming services with a “call for input” on how this might be undertaken<sup>2</sup>. The ERG responded<sup>3</sup> to the Commission’s proposals.

2.3 After significant debate the final Regulation on International roaming services was published on 29 June 2007<sup>4</sup>. The primary provisions were to cap wholesale and retail charges and set a number of transparency obligations, helping to ensure that consumers were well informed on the level of retail prices they could expect to pay when making or receiving calls whilst abroad. The provisions of the Regulation entered force at different times, with wholesale provisions starting in August and retail and transparency provisions taking full effect at the end of September 2007.

### **This Report**

2.4 According to the Roaming Regulation, in particular Article 7 and Article 11, individual NRAs are required, “...to monitor developments in wholesale and retail charges” (Art. 7.3), and the Commission, “...to report to the Parliament and the Council no later than 30 December 2008”, on the functioning of the Regulation making use, if appropriate, “...of the information supplied pursuant to Article 7(3).” (Article 11.1).

2.5 While the obligations are addressed to individual NRAs, the ERG considered that it could add value by pursuing the following objectives:

- To simplify the process, both for NRAs and for the Commission.
- To improve the consistency of the data collected.

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[http://ec.europa.eu/information\\_society/activities/roaming/roaming\\_regulation/first\\_phase/index\\_en.htm](http://ec.europa.eu/information_society/activities/roaming/roaming_regulation/first_phase/index_en.htm)

<sup>3</sup> [http://www.erg.eu.int/doc/whatsnew/erg\\_response\\_22\\_march\\_2006.pdf](http://www.erg.eu.int/doc/whatsnew/erg_response_22_march_2006.pdf) and

[http://www.erg.eu.int/doc/whatsnew/erg\\_response\\_11\\_may\\_2006.pdf](http://www.erg.eu.int/doc/whatsnew/erg_response_11_may_2006.pdf)

<sup>4</sup> [http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l\\_171/l\\_17120070629en00320040.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_171/l_17120070629en00320040.pdf)

- To coordinate the actions of individual NRAs, as the data collection exercise has made use of a unique and commonly agreed data collection model, and the process was synchronized and based on the same collection periods.
- To, as far as possible, provide a common response to the different questions posed during the collection process by operators and NRAs, as the ERG has served as the forum where these questions have been commonly debated and addressed.

2.6 In addition, the ERG considered it important to collect and publish a wider range of information than that explicitly set out in Articles 7 and 11 in order to give a full picture of the effect of the Regulation and the state of evolution of the roaming market. The ERG therefore consulted not only the market players (during September 2007) but also the Commission before finalising its data collection template. The ERG believes that the information collected in this and subsequent reports should provide a sound basis for the Commission's review of the Regulation required by the end of 2008.

2.7 This 'benchmark' report is the first in a series of reports that the ERG expects to produce providing an overview of international roaming across the EU. The majority of the period covered by this report (April – September 2007) was not covered by the Regulation, and as such the information has been collected on a "best efforts" basis, and should not be considered as complete or comprehensive.

2.8 The ERG considered that it would be useful to collect information across this extended period to provide a 'benchmark' against which future market data might be assessed. Collecting information earlier also helps to identify problems in the provision and reporting systems currently used, allowing the providers required to supply information to NRAs in a timely fashion and to amend and/or develop their current data collection systems sufficiently to ensure that full information is provided for the first period during which the Regulation takes full effect (October '07 – March '08).

### ***Methodology for data collection***

2.9 The ERG consulted on a draft version of its data questionnaire during September. Following comments received, the ERG amended the data questionnaire sent to providers and published the final version, with accompanying Explanatory Memorandum in October<sup>5</sup>. Information gathered as part of this exercise has been used in the formulation of this report.

2.10 The information gathered covers retail and wholesale for both voice and data services. In addition information was gathered on traffic steering and inadvertent roaming. Each NRA aggregated individual provider data to provide a national aggregate to ERG. Therefore only national aggregated data appears in this report.

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<sup>5</sup> [http://www.erg.eu.int/doc/publications/erg\\_07\\_47\\_rev1\\_data\\_model\\_spec\\_roaming\\_reg.xls](http://www.erg.eu.int/doc/publications/erg_07_47_rev1_data_model_spec_roaming_reg.xls)  
[http://www.erg.eu.int/doc/publications/erg\\_07\\_47\\_rev1b\\_data\\_model\\_spec\\_on\\_roaming\\_reg\\_exp\\_mem.pdf](http://www.erg.eu.int/doc/publications/erg_07_47_rev1b_data_model_spec_on_roaming_reg_exp_mem.pdf)

2.11 Over 150 providers of international roaming services provided information for this report. These include virtually all mobile operators in the EU, as well as a significant number of MVNOs providing roaming services in the EU<sup>6</sup>. The ERG estimate that this covers around over 95% of the EU consumers using international roaming services today.

***Format of the report***

2.12 Section 3 sets out an overview of the data collected as part of this exercise. Section 4 provides a summary of compliance issues reported to NRAs and outlines the proposals for future data collection. The Annex lists the providers that supplied information to NRAs for inclusion in this 'benchmark' report.

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<sup>6</sup> Two operators, and several MVNOs, from Norway (which adopted the Regulation in December 2007) also contributed to the data collected as part of this report.

## Section 3

# Overall data summary

3.1 All EU countries took part in this data gathering exercise; Norway also participated, given the extension of the Regulation to the EEA from December 2007. A comprehensive range of information was requested by NRAs from their national providers of international roaming services. Given that the provisions of the Regulation did not take full effect until the end of September, the data gathered as part of this report has been collected on a “best efforts” basis. In future, NRAs will be entitled to rely on the statutory data-gathering powers set out in Article 7(4) of the Regulation.

3.2 The data presented below represents the result of this first ERG information gathering process, and provides an overview of international roaming for the period 1<sup>st</sup> April to 30 September 2007, split by calendar quarter.

3.3 Some providers were unable to provide all of the data requested for this exercise but will be expected to upgrade their systems, where necessary, to provide a full picture for future data collections. In some cases best estimates have been provided where actual data was not available.

3.4 Despite the fact that the Regulation only took full effect at the end of the period of data collection, the ERG believes that the data shows a positive picture of reducing wholesale and retail roaming prices over time, consistent with the requirements of the Regulation.

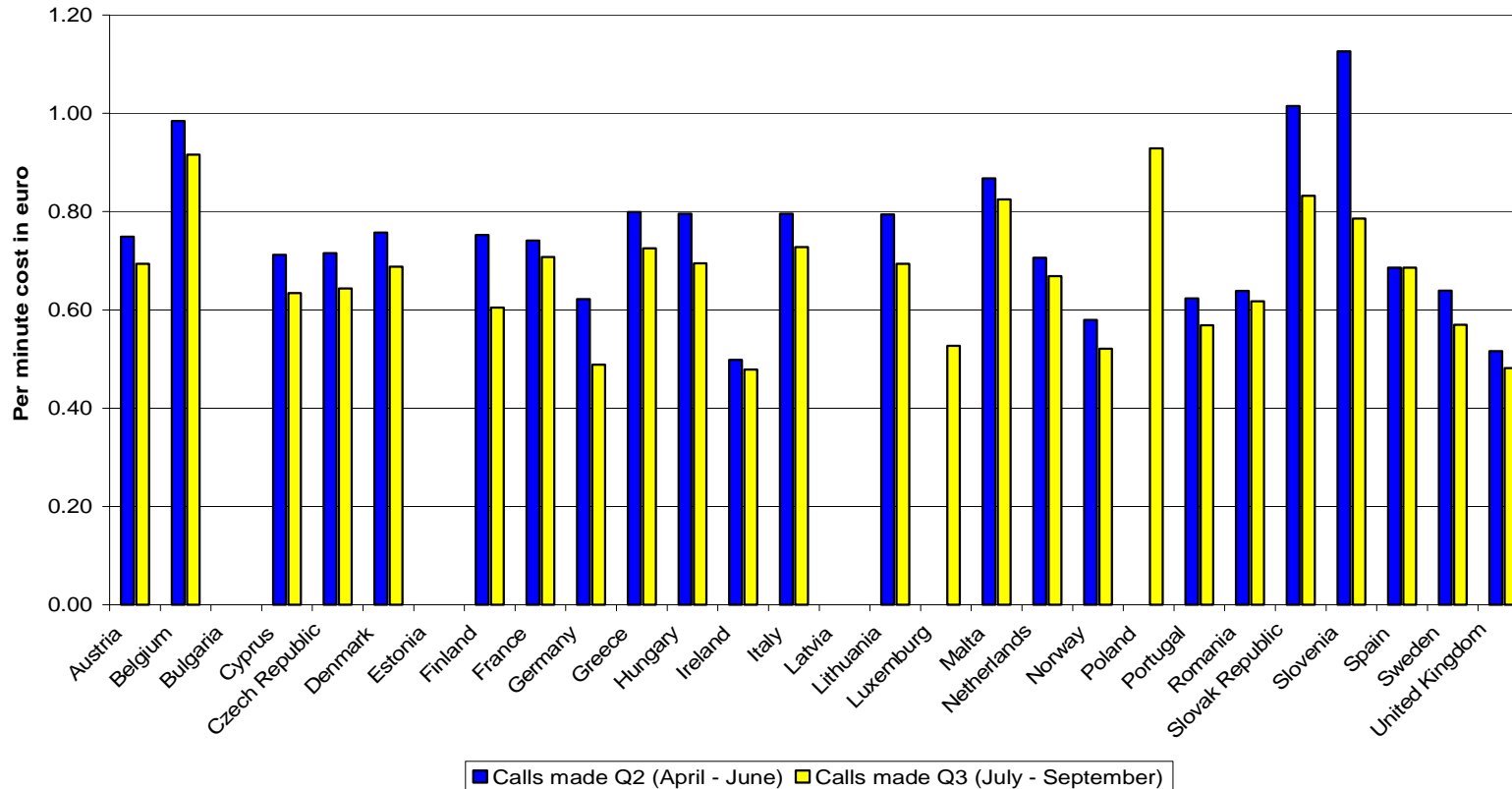
## Retail roaming services

3.5 The following charts all concern data regarding the retail market<sup>7</sup>.

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<sup>7</sup> All prices are in Euros and exclude VAT. In some cases data for particular countries was unavailable, some gaps therefore appear in the charts that appear in this Section.

**Figure 1: Average price roaming EU/EEA voice calls (billed minutes)  
Calls made (April - September 2007)**

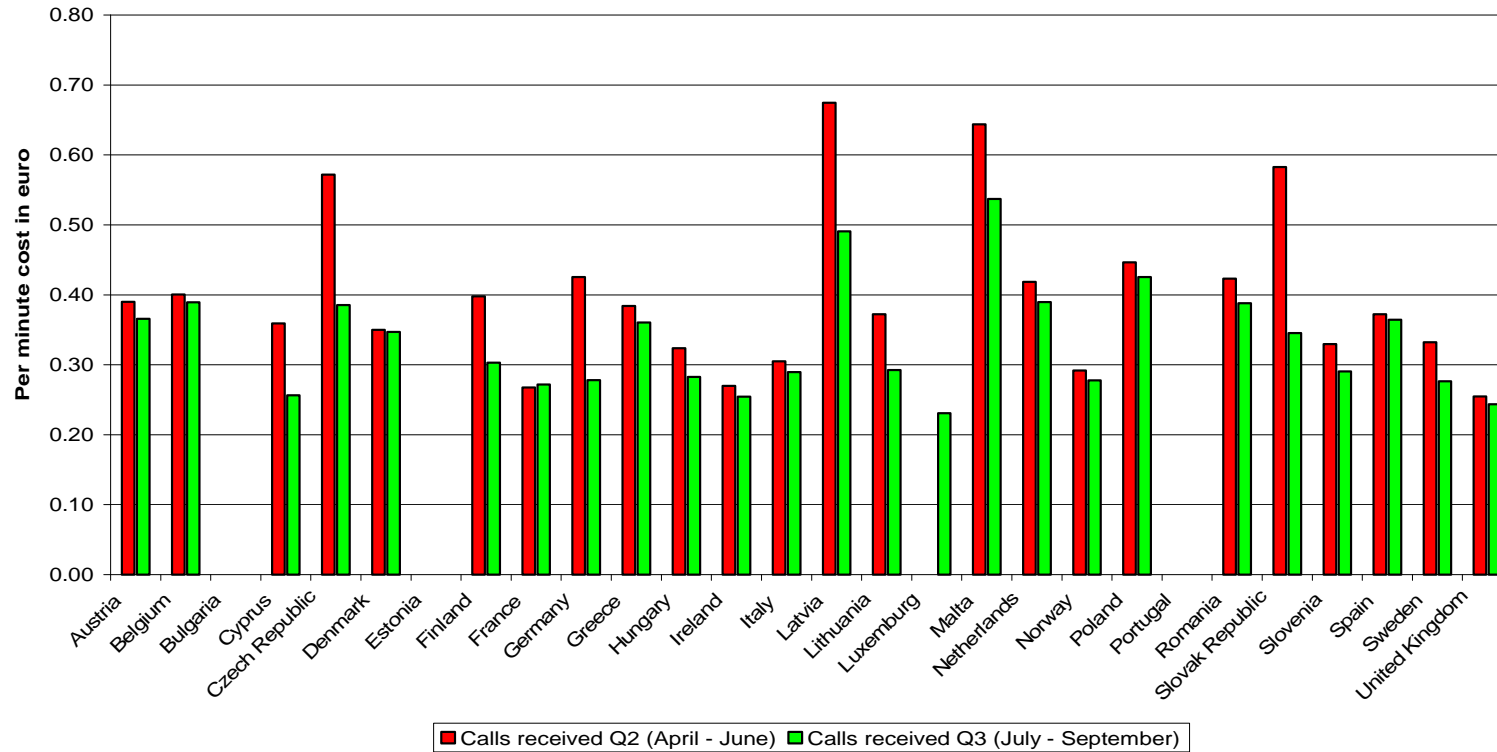


**Average:** Calls made Q2 = €0.69; Q3 = €0.62

3.6 Figure 1 shows changes in the average price per minute for making a call within the EU. In almost all cases there has been a reduction in the average retail price for making calls within the EU between the second and third quarter of 2007. ERG expects this downward trend to continue as the full effect of the Regulation (and the availability of the Eurotariff) is felt.



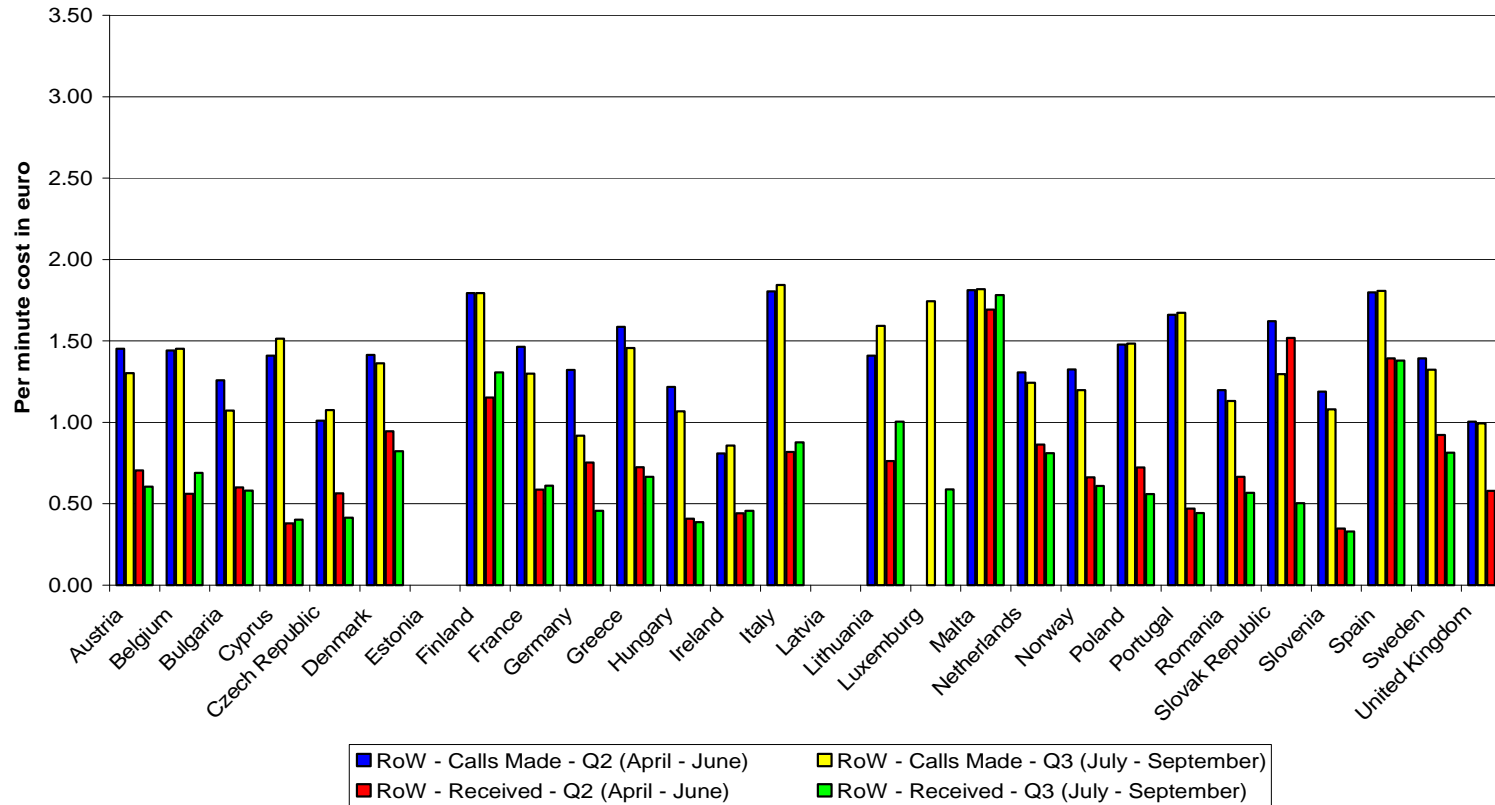
**Figure 2: Average price roaming EU/EEA voice calls (billed minutes)  
Calls received (April - September 2007)**



**Average:** Calls received Q2 = €0.34; Q3 = €0.30

3.7 Figure 2 shows the change in the average price, per minute, for receiving a call within the EU. Similarly to Figure 1, this shows reductions in the average price for receiving a call within the EU between the second and third quarters of 2007.

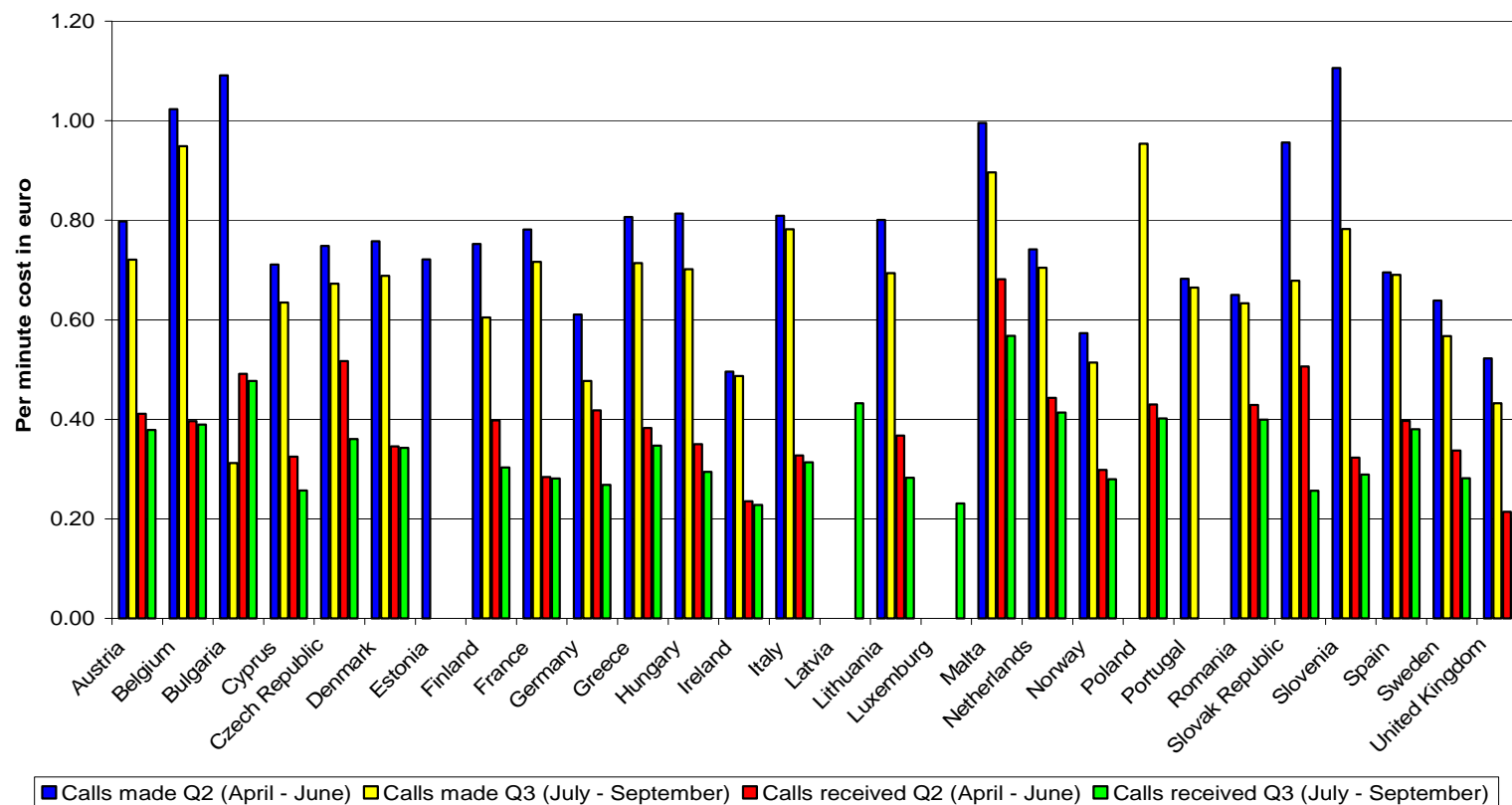
**Figure 3: Rest of World price of a roaming voice call (billed minutes)  
(April - September 2007)**



**Average:** Calls made Q2 = €1.37; Q3 = €1.31 and Calls received Q2 = €0.69; Q3 = €0.66

3.8 Figure 3 relates to call types that are not subject to the provisions set out in the Regulation. In general prices for these calls, both making and receiving, appear to have remained fairly constant. This is something ERG will continue to monitor as the Regulation takes effect over the coming months.

**Figure 4: Postpaid - EU/EEA roaming voice calls (billed minutes)  
(April - September 2007)**



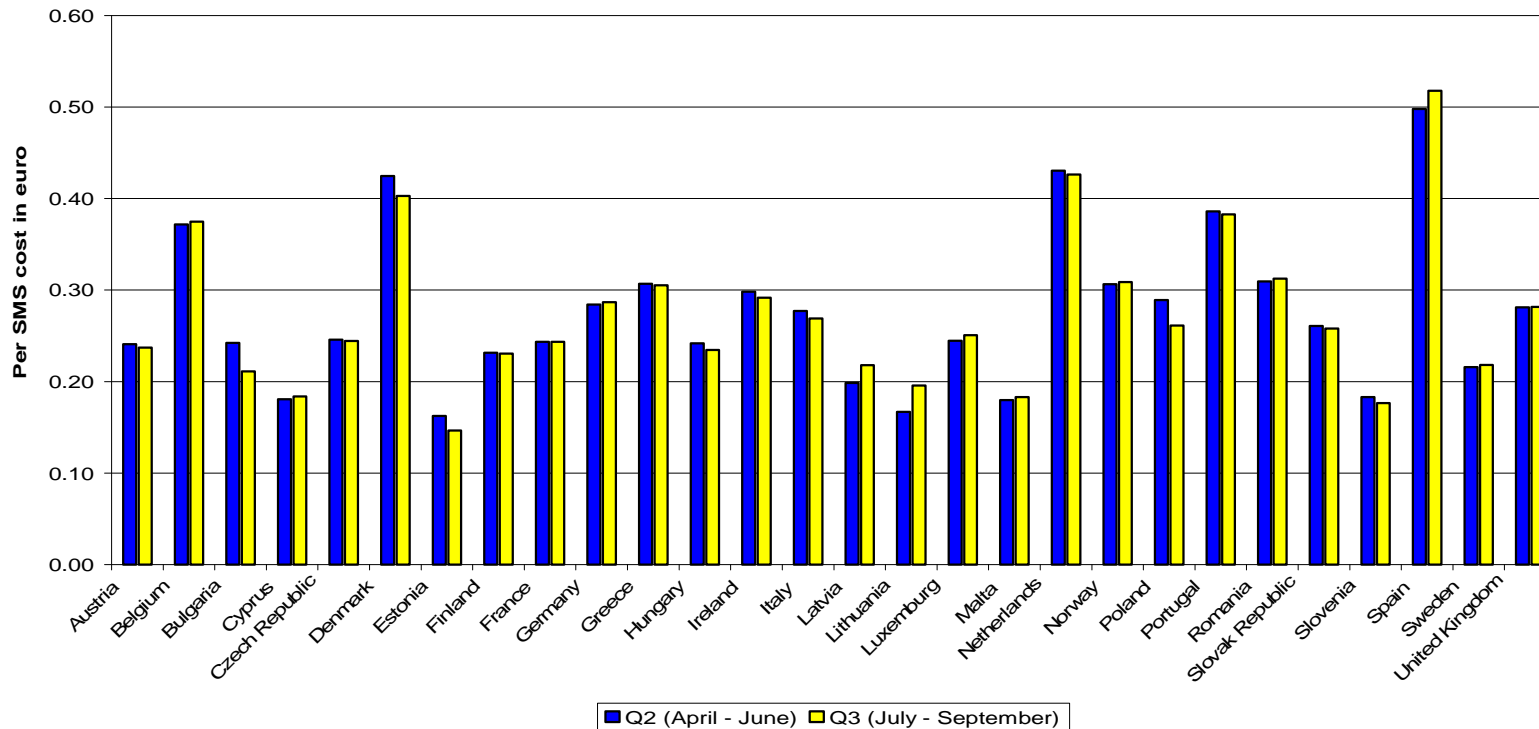
**Average:** Calls made Q2 = €0.70; Q3 = €0.61 and Calls received Q2 = €0.35; Q3 = €0.31

3.9 Figure 4 shows variations for post-paid consumers between Q2 and Q3 2007. For the most part, the variations and changes over time for post-paid customers reflect the overall picture set out in earlier figures. In future reports ERG will look more closely at pre-paid and corporate rates also.

## Retail SMS and data services

3.10 Currently the roaming Regulation only extends to voice services, SMS (text) and data are therefore currently excluded. Nevertheless, the ERG considered it important to collect information on data and SMS services. Figures 5 and 6 show average prices per SMS and for data per megabyte.

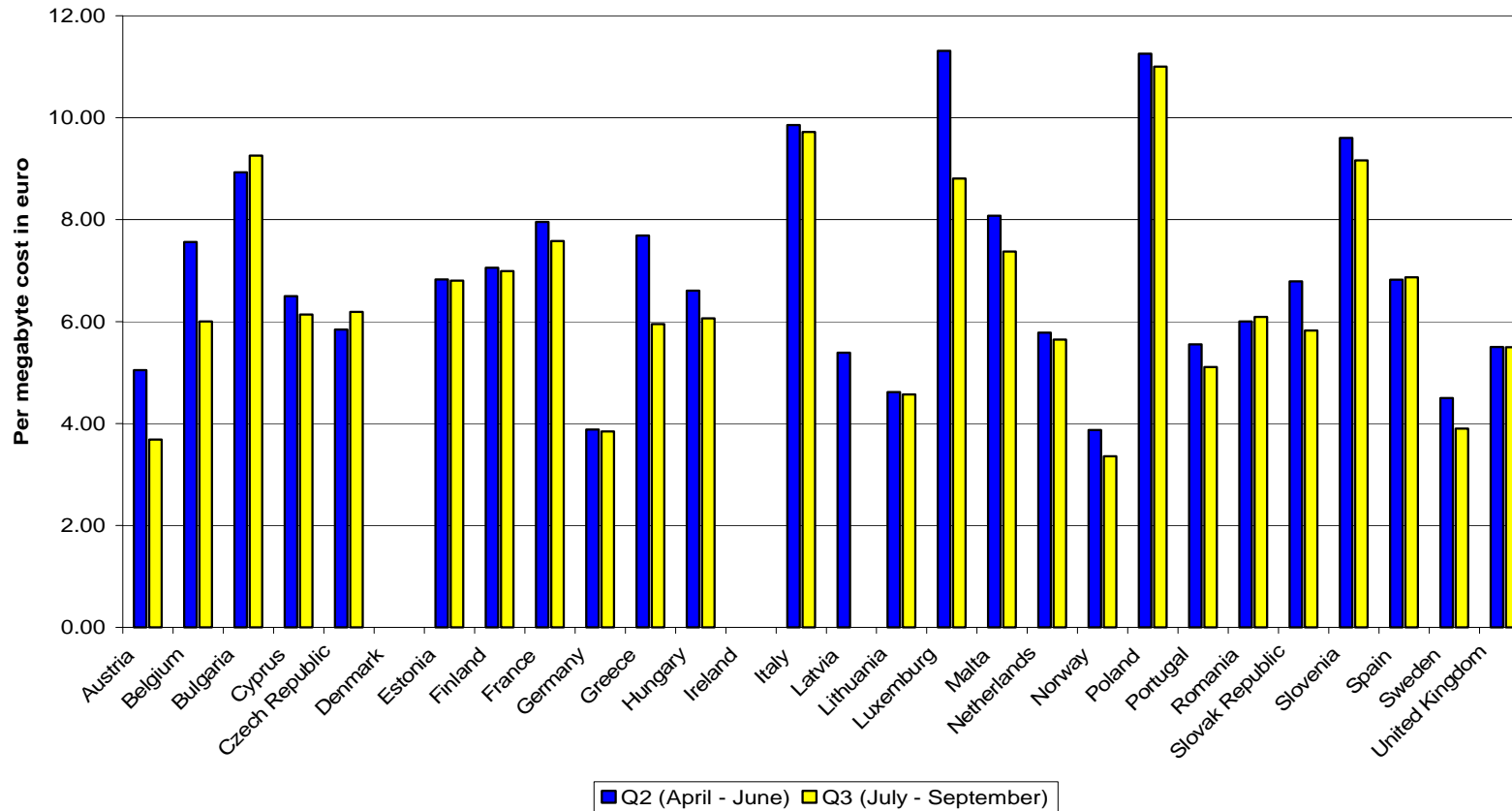
**Figure 5: SMS - price per roaming EU/EEA message (April - September 2007)**



**Average:** Q2 = €0.29; Q3 = €0.29

3.11 Figure 5 provides an overview of the current tariffs charged for sending a text message within the EU. There is a wide variation across the EU at present.

Figure 6: Data - price per EU/EEA roaming MB (April - September 2007)



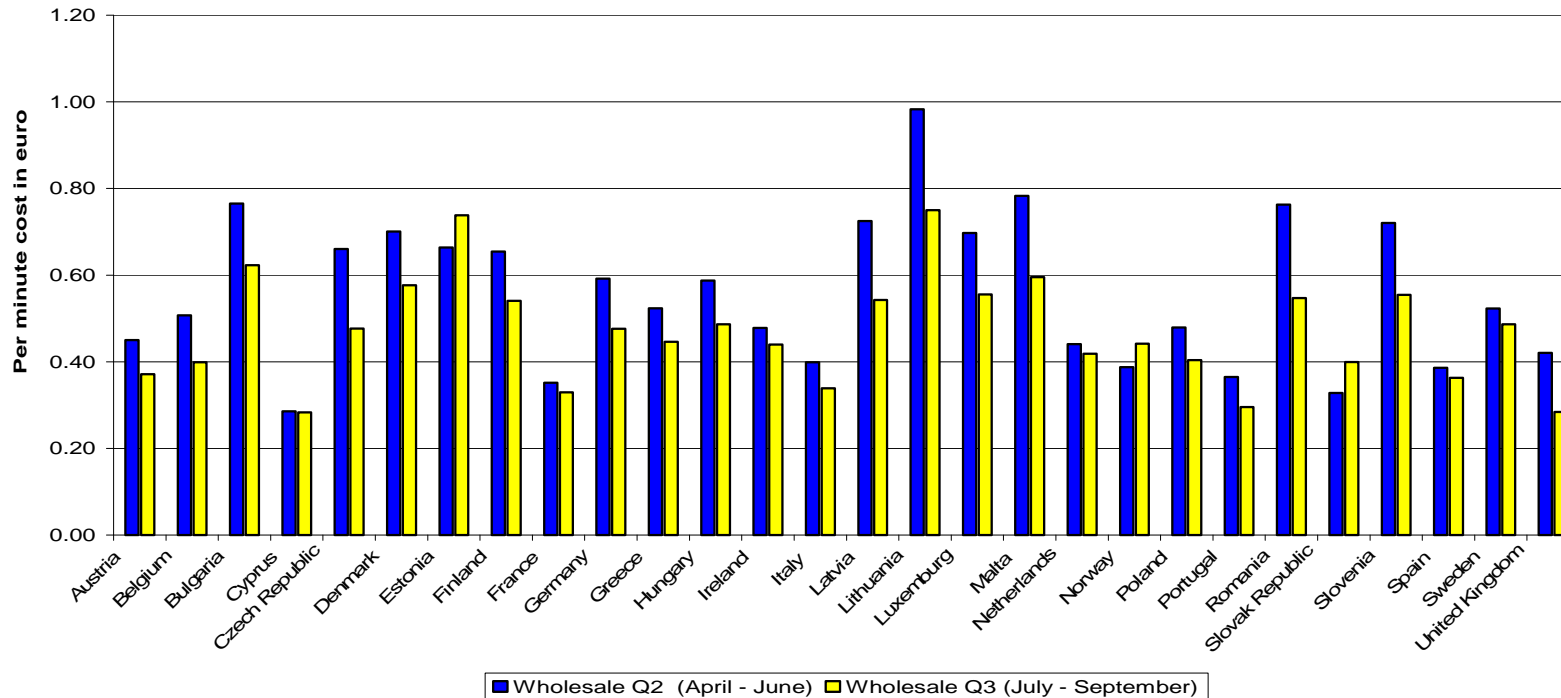
Average: Q2 = €5.81; Q3 = €5.24

3.12 Figure 6 gives an overview of the current tariffs charged for transferring a megabyte of data within the EU. As with SMS, the chart shows that the average price of a megabyte of data varies considerably across the different EU countries.

## Wholesale Roaming services

3.13 The following chart concerns data on the wholesale market.

**Figure 7: Wholesale EU/EEA non-group roaming voice calls (billed minutes)  
(April - September 2007)**



**Average:** Q2 = €0.46; Q3 = €0.39

3.14 The chart in Figure 7 illustrates the average price per minute of a regulated wholesale call. Traffic between companies within the same group has been excluded as such traffic may not be charged on an “arm’s length” basis. The Regulation specifies that on average the wholesale charge should be no higher than €0.30 per minute. Wholesale charges appear to have reduced in the period up to the Regulation taking effect, with the majority of operators reducing charges in quarter 3 of 2007.

## Section 4

# Further Issues

### Additional information

4.1 The ERG also gathered information in relation to Traffic Steering and Inadvertent Roaming, as required under Article 7 of the regulation.

### *Traffic steering*

4.2 Traffic Steering is a technique used by mobile operators to steer traffic on to a preferred or partner network. There are a number of methods used to achieve this, but the result is that the consumer will roam onto the foreign network of their home networks choice. Evidence suggests that this is used to provide a better or cheaper service to the roaming consumer.

4.3 None of the providers that responded to the information request stated that traffic steering was used to the disadvantage of consumers through higher charges. In general such techniques were used to offer consumers a better deal, through either lower retail prices or enhanced services, or both.

### *Inadvertent roaming*

4.4 Inadvertent roaming can occur near international borders. When a consumer is close to a border it is possible that they will pick-up a foreign mobile operator's network signal even if they are not actually located in the country of the foreign operator. In such cases, the consumer may be charged as if they were internationally roaming when in fact they are still physically located in their home country.

4.5 The issue of inadvertent roaming was recognised by the majority of respondents to the information request. However, in general this was not identified as a significant problem, with apparently relatively few consumers adversely affected.

4.6 Many providers operated a number of mechanisms to deal with the issue of inadvertent roaming. Information was generally available on provider websites, and where a particular issue was identified (for example between Northern Ireland and the Republic of Ireland) providers generally took additional steps to ensure consumers were aware of the issue in some cases even offering specific bespoke tariffs.

4.7 The majority of providers also reported that where roaming genuinely occurred inadvertently, charges may be waived as a goodwill gesture.

### Summary of data 'gaps'

4.8 This first major data collection revealed that a number of companies had problems in supplying data of reasonable quality. This is not at all unusual for a comprehensive data collection of this type. In many cases the NRA was able to work with the company to resolve or alleviate the problem. In others cases where system upgrades will be necessary to comply with the data collection the company was asked to provide the best possible estimate available currently and to complete the upgrades in time to provide high quality data for the next collection. There is therefore a degree of uncertainty around figures relating to individual Member States which ERG expects will be much reduced in future periods. However, ERG believes that the European average figures and the picture

shown of variability in charges across Europe provide a good picture of the prices charged in the middle 2 quarters of 2007.

### **Actual/billed minutes**

4.9 Several providers were unable to provide accurate information on the difference between actual time used ('actual' minutes) and billed minutes. The ERG considers that it is important to understand the actual average rate charged to consumers for international roaming services. For example a consumer may only use 20 seconds of a call but be charged for a full minute. At the retail level, the difference appears to be typically around 20% although it is often lower at the wholesale level.

4.10 As noted above, for the purposes of this report, where data for actual or billed minutes has not been provided the ERG has sought estimates. ERG expects both actual and billed minutes to be provided in future data collections.

### **Overview of compliance issues**

4.11 Overall compliance with the provisions of the Regulation has been very good. All mobile operators offer their consumers a Eurotariff, compliant with the rates set down in Article 4 of the Regulation, wholesale rates also appear to be falling in line with the requirements set out in Article 3 of the Regulation and consumer transparency is improving.

### **Transparency**

4.12 There were a number of relatively minor issues relating to the timing of compliance that arose after implementation of the Regulation. As part of the Regulation all operators are required to satisfy certain transparency obligations. Most operators were able to meet the required criteria set out in the regulation by the deadline of September 2007. However, a few providers were unable to provide the 'welcome' "push" SMS message to any of their consumers at the end of September as the companies' systems could not be upgraded in time. In the case of the majority of those delays, the systems are now in place to ensure that this requirement is complied with.

4.13 A number of other instances, affecting a small number of consumers have also been reported. In all cases the relevant NRA is actively monitoring progress in completing the necessary remedial work on companies' systems to ensure that the provisions contained in the Regulation will be complied with as soon as possible and is ready to take the necessary compliance action if required.

### **Future data collection**

4.14 The ERG currently intends to collect data on a 6 monthly basis, with data split by quarter. The next period for data collection will therefore be from 1 October 2007 to 31 March 2008. The ERG expects to report on this data in July 2008.



## Annex 1

# List of respondents

<b>Austria</b>
Mobilkom Austria
T-Mobile Austria
One
Hutchison 3G Austria
Tele2 Austria
Yesss!
eTel Austria
Dialog Telekom

<b>Bulgaria</b>
Mobiltel EAD
Cosmo Bulgaria Mobile EAD
BTC Mobile EOOD

<b>Czech Republic</b>
Telefónica O2 Czech Republic
T-Mobile Czech Republic
Vodafone Czech Republic

<b>Denmark<sup>8</sup></b>
TDC
TeliaSonera
Sonofon
3
Telmore

<b>Belgium</b>
Belgacom Mobile
Mobistar
Base

<b>Cyprus</b>
Cytamobile-Vodafone
MTN Cyprus (Areeba Ltd)

<b>Estonia</b>
Elisa Eesti AS
AS EMT
TELE 2 Eesti AS
ProGroup Holding OÜ
OÜ Top Connect

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<sup>8</sup> Denmark received a number of additional data responses that have not been taken into account for the purposes of this aggregated EU data report (given the relatively low market shares of the respondents) and which therefore have not been listed in this annex. This additional data does however form part of the data relevant to Denmark.

<b>Finland</b>
TeliaSonera Finland Oyj
DNA Networks Ltd
Elisa Corporation
Alands Mobiltelefon Ab

<b>France</b>
Auchan mobile
Bouygues Telecom
Coriolis
Debitel
Digicel AFG
Mobisud
Orange Caraïbe
Orange France
Orange Réunion
SFR
SRR
Ten
Transatel
Virgin

<b>Germany</b>
T-Mobile Deutschland GmbH
Vodafone D2 GmbH
E-Plus Mobilfunk GmbH & Co. KG
O2 Germany GmbH & Co. OHG

<b>Greece</b>
COSMOTE Mobile Telecommunications
Vodafone Panafon
Wind HellasTelecommunications

<b>Hungary</b>
T-Mobile
Pannon GSM Távközlési Zrt
Vodafone Magyarország Zrt

<b>Ireland</b>
Hutchison 3G Ireland
Meteor Mobile Communications
O2 Communications Ireland
Vodafone Ireland

<b>Italy</b>
Telecom Italia
Vodafone Omnitel
Wind Telecomunicazioni
H3G Italia
Coop Voce
Carrefour Italia Mobile

<b>Latvia</b>
Bite Latvia
Tele2
Latvijas Mobilais Telefons

<b>Lithuania</b>
Omnitel
Tele2
Bitė Lietuva
Eurocom
Laracijos telekomunikacijos
CSC Telecom

<b>Luxemburg</b>
LOL Mobile
LUXGSM / Ent. des Postes et Télécommunications
TANGO
TRANSATEL
VOXmobile

<b>Malta</b>
Go Mobile
Vodafone Malta

<b>Netherlands</b>
AH Mobiel
Debitel Nederland
Hema
Intercity Communications
KPN
Orange Nederland
Ortel Mobile
Qick - MRGQ
Rabo Mobiel
Tele2 Netherlands
T-Mobile Netherlands
UPC Nederland Mobile
Vodafone Libertel

<b>Norway</b>
Telenor
NetCom
Tele2 Norge
Ventelo
Lebara
ACN Norge
Hello
Network Norway
TDC
Lyse Tele
Telio Telecom
Newphone Norge
One Call
Vitel Tele
Tello Norge
Chess
Talkmore
Telenordic

<b>Poland</b>
Polska Telefonía Komórkowa Centertel
Polska Telefonía Cyfrowa
Polkomtel
P4
emFinanse
Avon Mobile

<b>Portugal</b>
Sonaecom - Serviços de Comunicações
Vodafone Portugal - Comunicações Pessoais
TMN - Telecomunicações Móveis Nacionais

<b>Romania</b>
Vodafone Romania
Orange Romania
Cosmote Romanian Mobile Telecommunications

<b>Slovak Republic</b>
Telefónica O2 Slovakia
T-Mobile Slovensko
Orange Slovensko

<b>Slovenia</b>
Mobitel
Simobil
Debitel
Izimobil
Tušmobil

<b>Spain</b>
Telefonica Moviles de España
Vodafone
Orange
Yoigo
Euskaltel

<b>Sweden</b>
TeliaSonera
Tele2
Telenor
Hi3G
Ventelo
Spring

<b>UK</b>
O2 UK
Vodafone UK
Orange UK
T-Mobile UK
3 UK
Tesco Mobile
BT Mobile