

Termination Rates Benchmark Snapshot (as of July 2013)

Integrated Report on Mobile Termination Rates and SMS Termination Rates

November 2013

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I. INTRODUCTION

The present Integrated Report on Termination Rates in Europe provides an overview of mobile termination rates (MTRs) and SMS termination rates (SMS TRs) per country based upon the results of a request for information sent to all national regulatory authorities (NRAs) referring to data as of 1 July 2013.

The MTRs monitoring exercise was started by the European Regulators Group (ERG) in 2004 and BEREC continues the work by collecting data twice a year. BEREC started benchmarking SMS TRs in 2011.

This report aims to provide a snapshot of the mobile and SMS services wholesale rates for interconnection and termination in Europe.

MTRs are regulated in almost all the countries benchmarked, while SMS wholesale prices are not regulated in the majority of them.

As of July 2013, this is the situation of Termination Rates in Europe:

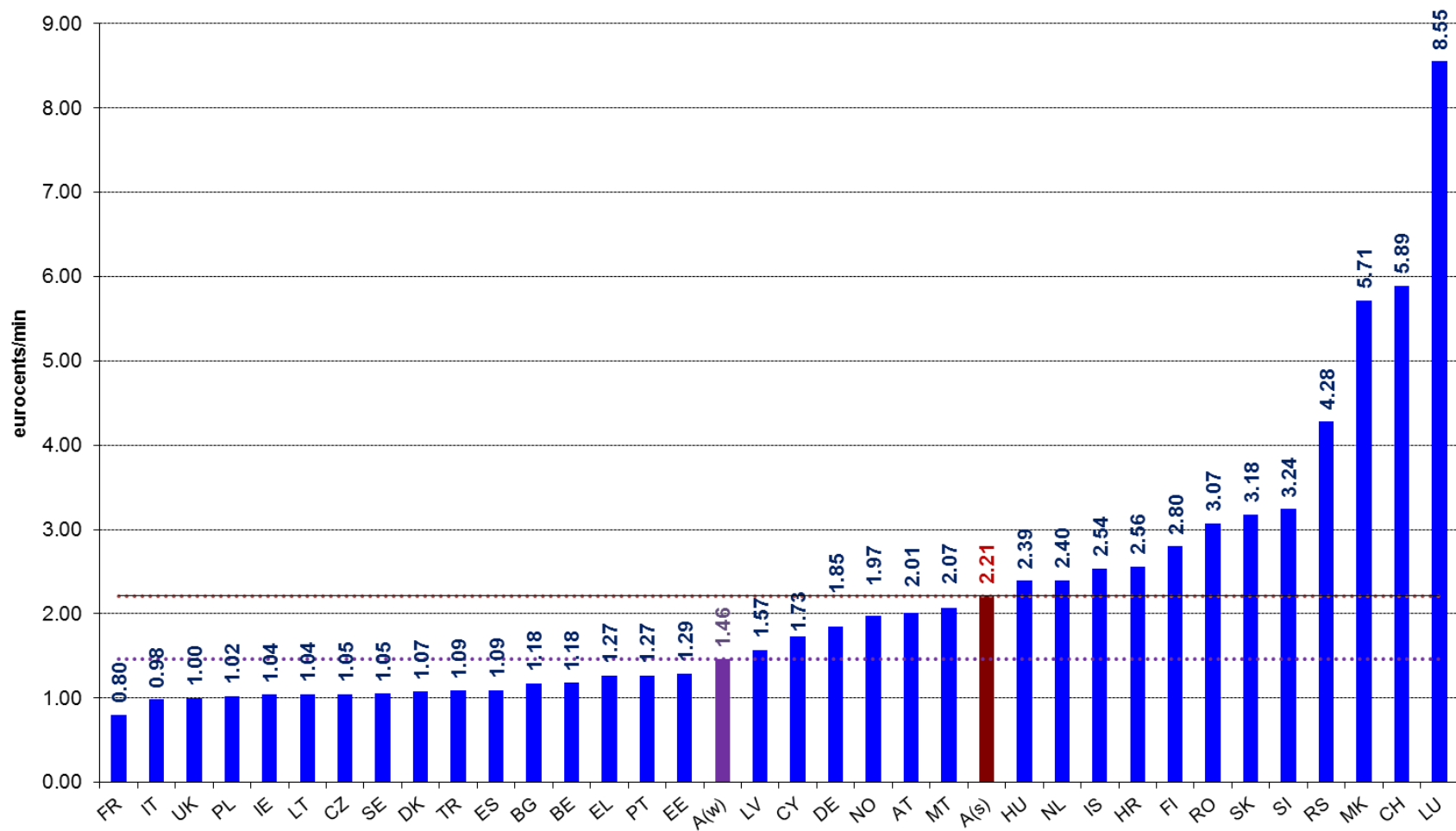
- MTR simple average A(s) for the EU stands at 2.22 cents per minute, whereas EU weighted average A(w) is estimated at 1.46 cents per minute.
- Domestic SMS TR EU A(s) is 2.64 cents per SMS, whereas A(w) is reported to be 2.47 cents per SMS.

For non-euro countries, the average exchange rate for the second quarter of the year (Q2 2013)¹ was used for the calculation of MTR and SMS TRs. The exchange rates used are reported in the Annex (V.2).

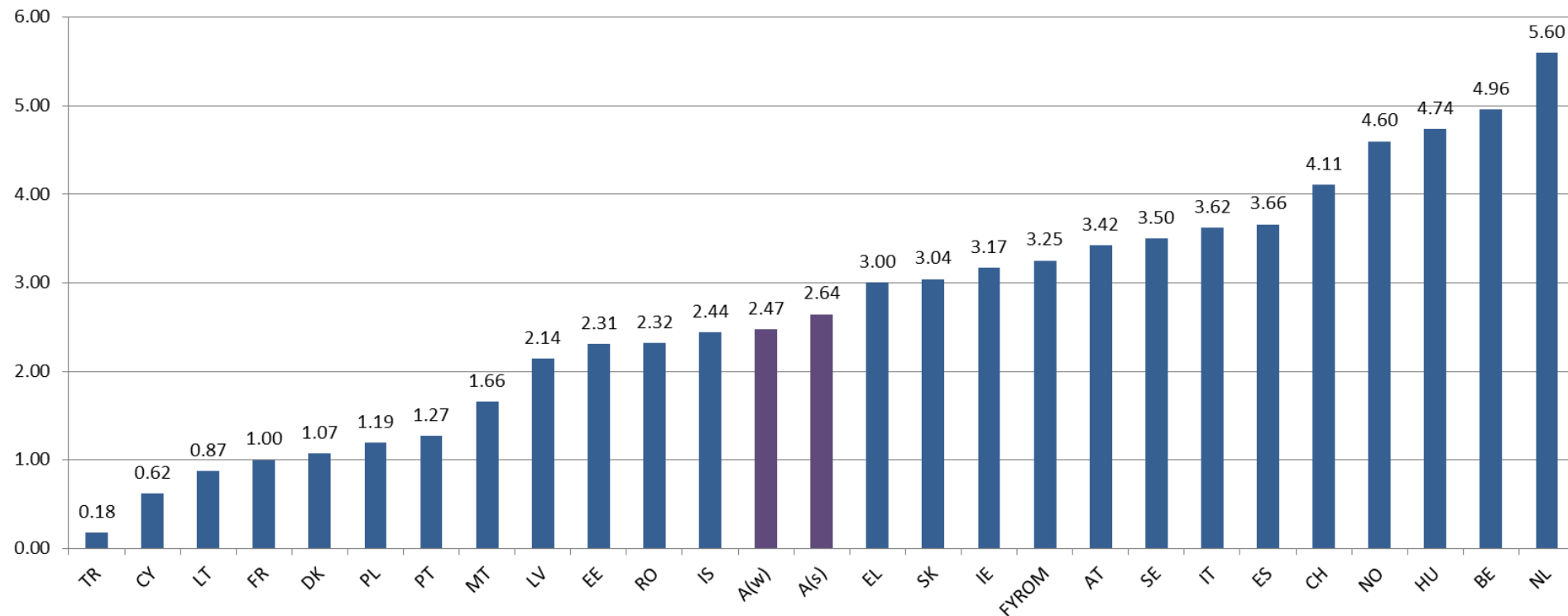
¹ European Central Bank website:
<http://sdw.ecb.europa.eu/browseSelection.do?DATASET=0&sf1=4&FREQ=Q&sf13=4&CURRENTCY=&node=2018794>

II. CHARTS

Average MTR per country – July 2013



Average SMS TR per country – July 2013



III. MOBILE TERMINATION RATES

1. Assumptions

- Only nominal tariffs are represented in the report, being defined as ‘The price (in eurocent/minute) set out by the regulator that represents the maximum price per minute which operators may charge each other (without any adjustment for purchasing power parity or real effects of inflation)’.
- In order to obtain a homogeneous comparison, a three-minute average call duration has been assumed; set-up charges are accounted for by the standard formula².
- Operators with a market share below 1.5% have been excluded from the MTR average calculation.
- For those countries that have not set an average tariff and that, additionally, apply different rates – one for the peak period, and another for the off-peak period – a total average tariff per operator has been calculated with the distribution of peak and off-peak traffic.
- Average MTRs per country have been obtained by weighting the average MTR of each operator by its market share, measured in terms of subscribers. Two general averages at the European level have been calculated: a simple average and a weighted average. The latter weights each country’s average with the share of the country’s subscribers (total subscribers per country divided by total European subscribers). In the case of the European weighted average, only the countries that reported the number of subscribers are taken into account.
- Regarding the number of subscribers, it must be considered that different methods of accounting for them are used among European countries (especially in the case of pre-paid consumers or M2M (machine to machine) SIM cards).

² The formula is: $(\text{fixed set-up charge} + \text{price per minute} \times 3) / 3$.

Given that the assumed length of an average call is three minutes, if mobile operators charged for the first minute or 30 seconds, the mobile termination rate would be obtained in the same way as in the case where there is no set-up charge.

Average MTR per country as of July 2013

Country	Average MTR per country (€cent)		
	Peak	Off-peak	Total
AT	2.0100	2.0100	2.0100
BE	1.1800	1.1800	1.1800
BG	1.1760	1.1760	1.1760
CH	5.8883	5.8883	5.8883
CY	1.7349	1.7349	1.7349
CZ	1.0453	1.0453	1.0453
DE	1.8500	1.8500	1.8500
DK	1.0730	1.0730	1.0730
EE	1.2900	1.2900	1.2900
EL	1.2690	1.2690	1.2690
ES	1.0900	1.0900	1.0900
FI	2.8000	2.8000	2.8000
FR	0.8000	0.8000	0.8000
HR	2.5580	2.5580	2.5580
HU	2.3889	2.3889	2.3889
IE	1.0400	1.0400	1.0400
IS	2.5394	2.5394	2.5394
IT	0.9800	0.9800	0.9800
LT	1.0426	1.0426	1.0426
LU	9.1750	7.9300	8.5525
LV	1.5694	1.5694	1.5694
FYROM	5.7149	5.7149	5.7149
MT	2.0700	2.0700	2.0700
NL	2.4000	2.4000	2.4000
NO	1.9707	1.9707	1.9707
PL	1.0214	1.0214	1.0214
PT	1.2700	1.2700	1.2700
RO	3.0700	3.0700	3.0700
RS	4.2828	4.2828	4.2828
SE	1.0508	1.0508	1.0508
SI	3.2400	3.2400	3.2400
SK	3.1800	3.1800	3.1800
TR	1.0887	1.0887	1.0887
UK	0.9970	0.9970	0.9970
Average (s)	2.1689	2.1312	2.2128
Average (w) ³	1.4574	1.4574	1.4574

³ The Weighted Average does not take into account countries not providing the total number of subscribers.

Average MTR per operator as of July 2013

Country	Operator	Average effective prices (€cent)			Subscribers	Country total subscribers	Market Share %
		Peak	Off-peak	Total			
AT ⁴	A1Telekom Austria	2.0100	2.0100	2.0100	6,196,000	13,556,000	45.71%
	T-Mobile	2.0100	2.0100	2.0100	4,160,000		30.69%
	H3G (including Orange ⁵)	2.0100	2.0100	2.0100	3,200,000		23.61%
BE ⁶	Belgacom	1.1800	1.1800	1.1800	5,129,000	12,879,098	39.82%
	Mobistar	1.1800	1.1800	1.1800	4,839,698		37.58%
	KPN Group Belgium	1.1800	1.1800	1.1800	2,910,400		22.60%
BG ⁷	Mobitel	1.1760	1.1760	1.1760	<i>confidential</i>	10,604,968	41.48%
	Cosmo Bulgaria Mobile	1.1760	1.1760	1.1760	<i>confidential</i>		37.45%
	BTC	1.1760	1.1760	1.1760	<i>confidential</i>		21.07%
CH ⁸	Swisscom	5.3999	5.3999	5.3999	6,307,000	10,106,000	62.41%
	Sunrise	6.6991	6.6991	6.6991	2,116,000		20.94%
	Orange	6.6991	6.6991	6.6991	1,683,000		16.65%
CY	MTN Cyprus Ltd	1.7090	1.7090	1.7090	324,233	1,108,745	29.24%
	CytamobileVodafone	1.7090	1.7090	1.7090	760,618		68.60%
	Prime TelMobile	2.9090	2.9090	2.9090	23,894		2.16%
CZ	T-Mobile	1.0453	1.0453	1.0453	<i>confidential</i>	<i>confidential</i>	39.94%
	Telefónica	1.0453	1.0453	1.0453	<i>confidential</i>		38.11%
	Vodafone	1.0453	1.0453	1.0453	<i>confidential</i>		21.84%
	Air Telecom ⁹	1.0453	1.0453	1.0453	<i>confidential</i>		0.11%
DE ¹⁰	T-Mobile	1.8500	1.8500	1.8500	37,492,000	113,571,000	33.01%
	Vodafone	1.8500	1.8500	1.8500	32,242,000		28.39%
	E-plus	1.8500	1.8500	1.8500	24,426,000		21.51%
	O2Telefónica	1.8500	1.8500	1.8500	19,411,000		17.09%
DK	TDC	1.0730	1.0730	1.0730	3,048,568	7,271,257	41.93%
	Telia	1.0730	1.0730	1.0730	1,271,970		17.49%
	Telenor	1.0730	1.0730	1.0730	1,842,456		25.34%
	Hi3G	1.0730	1.0730	1.0730	534,957		7.36%
EE	EMT	1.2900	1.2900	1.2900	874,320	2,066,496	42.31%
	Elisa	1.2900	1.2900	1.2900	635,023		30.73%
	Tele2	1.2900	1.2900	1.2900	557,153		26.96%
EL ¹¹	Cosmote	1.2690	1.2690	1.2690	<i>confidential</i>	13,353,707	<i>confidential</i>
	Vodafone	1.2690	1.2690	1.2690	<i>confidential</i>		<i>confidential</i>
	Wind	1.2690	1.2690	1.2690	<i>confidential</i>		<i>confidential</i>

⁴ AT: subscribers as of July 2013.

⁵ AT: the takeover of Orange by H3G was cleared by the European Commission in December 2012.

⁶ BE: subscribers as at 01.01.2013 including M2M.

⁷ BG: the number of subscribers includes only the number of mobile voice SIMs (excluding data SIMs) as at 01.07.2013.

⁸ CH: subscribers as at 30.06.13.

⁹ CZ: Air Telecom applies regulated MTRs voluntarily, i.e. without any price regulation.

¹⁰ DE: number of subscribers in Q2 2013.

¹¹ EL: data refer to active subscribers as at 31.12.2012.

ES	TME	1.0900	1.0900	1.0900	17,901,582	49,980,135	35.82%
	Vodafone	1.0900	1.0900	1.0900	12,474,691		24.96%
	Orange	1.0900	1.0900	1.0900	10,905,251		21.82%
	Xfera	1.0900	1.0900	1.0900	3,279,956		6.56%
	Lycamobile	1.0900	1.0900	1.0900	1,073,437		2.15%
FI	DNA	2.8000	2.8000	2.8000	n.a.	n.a.	n.a.
	Elisa	2.8000	2.8000	2.8000	n.a.		n.a.
	TeliaSonera	2.8000	2.8000	2.8000	n.a.		n.a.
	ÅMT	2.8000	2.8000	2.8000	n.a.		n.a.
FR	Orange	0.8000	0.8000	0.8000	<i>confidential</i>	72,113,000	<i>confidential</i>
	SFR	0.8000	0.8000	0.8000	<i>confidential</i>		<i>confidential</i>
	Bouygues Telecom	0.8000	0.8000	0.8000	<i>confidential</i>		<i>confidential</i>
	Free Mobile	0.8000	0.8000	0.8000	<i>confidential</i>		<i>confidential</i>
	Lycamobile	0.8000	0.8000	0.8000	<i>confidential</i>		<i>confidential</i>
	Omea Telecom	0.8000	0.8000	0.8000	<i>confidential</i>		<i>confidential</i>
HR ¹²	HT	2.5580	2.5580	2.5580	2,349,573	5,011,048	46.89%
	VIPnet	2.5580	2.5580	2.5580	1,901,781		37.95%
	Tele2	2.5580	2.5580	2.5580	759,694		15.16%
HU	T-Mobile	2.3889	2.3889	2.3889	5,332,298	11,501,936	46.36%
	Telenor	2.3889	2.3889	2.3889	3,552,948		30.89%
	Vodafone	2.3889	2.3889	2.3889	2,616,690		22.75%
IE ¹³	Vodafone	1.0400	1.0400	1.0400	1,985,426	4,889,718	40.60%
	Telefonica Ireland	1.0400	1.0400	1.0400	1,379,691		28.22%
	Meteor	1.0400	1.0400	1.0400	1,009,376		20.64%
	Hutchinson 3G	1.0400	1.0400	1.0400	329,424		6.74%
	Tesco Mobile	1.0400	1.0400	1.0400	185,801		3.80%
IS ¹⁴	Siminn	2.5394	2.5394	2.5394	122,888	350,521	35.06%
	Vodafone	2.5394	2.5394	2.5394	98,100		27.99%
	Nova	2.5394	2.5394	2.5394	109,615		31.27%
	Tal	2.5394	2.5394	2.5394	19,285		5.50%
IT	Telecom Italia	0.9800	0.9800	0.9800	31,857,835	92,523,601	34.43%
	Vodafone Omnitel	0.9800	0.9800	0.9800	29,084,483		31.43%
	Wind	0.9800	0.9800	0.9800	22,000,000		23.78%
	H3G	0.9800	0.9800	0.9800	9,581,283		10.36%
LT ¹⁵	Bitė Lietuva	1.0426	1.0426	1.0426	1,004,266	4,941,523	20.32%
	Tele2	1.0426	1.0426	1.0426	1,914,540		38.74%
	Omnitel	1.0426	1.0426	1.0426	1,927,731		39.01%
LU	EPT	8.8000	7.6000	8.2000	n.a.	n.a.	52.00%
	Tango	8.8000	7.6000	8.2000	n.a.		33.00%
	Orange	11.3000	9.8000	10.5500	n.a.		15.00%
LV	LMT	1.5694	1.5694	1.5694	1,789,687	3,695,618	48.43%
	Tele2	1.5694	1.5694	1.5694	1,090,270		29.50%
	Bite Latvija	1.5694	1.5694	1.5694	777,108		21.03%
	Telecom Baltija	1.5694	1.5694	1.5694	38,554		1.04%

¹² HR: subscribers at Q2 2013.¹³ IE: subscribers at Q1 2013.¹⁴ IS: subscribers at Q2 2013¹⁵ LT: subscribers at Q2 2013.

FYROM	T Mobile Macedonia	4.8780	4.8780	4.8780	1,069,064	2,202,702	48.53%
	ONE TS	6.5041	6.5041	6.5041	513,693		23.32%
	VIP Macedonia	6.5041	6.5041	6.5041	619,945		28.14%
MT ¹⁶	Go Mobile	2.0700	2.0700	2.0700	193,489	547,695	35.33%
	Vodafone	2.0700	2.0700	2.0700	271,869		49.64%
	Melita Mobile	2.0700	2.0700	2.0700	71,242		13.01%
	Redtouch Fone	2.0700	2.0700	2.0700	10,994		2.01%
NL	KPN	2.4000	2.4000	2.4000	6,500,400	19,796,550	32.84%
	Vodafone	2.4000	2.4000	2.4000	4,622,340		23.35%
	T-Mobile	2.4000	2.4000	2.4000	5,298,395		26.76%
	all MVNO/SP	2.4000	2.4000	2.4000	3,375,415		17.05%
NO ¹⁷	Telenor	1.9707	1.9707	1.9707	2,911,067	5,873,564	49.56%
	NetCom	1.9707	1.9707	1.9707	1,403,634		23.90%
	Network Norway	1.9707	1.9707	1.9707	678,460		11.55%
	Tele2	1.9707	1.9707	1.9707	420,563		7.16%
PL	P4	1.0214	1.0214	1.0214	<i>confidential</i>	<i>confidential</i>	16.10%
	T-Mobile Polska	1.0214	1.0214	1.0214	<i>confidential</i>		29.30%
	Polkomtel	1.0214	1.0214	1.0214	<i>confidential</i>		25.65%
	PTK Centertel	1.0214	1.0214	1.0214	<i>confidential</i>		27.60%
PT ¹⁸	TMN	1.2700	1.2700	1.2700	7,631,686	16,678,635	45.76%
	VODAFONE	1.2700	1.2700	1.2700	6,193,001		37.13%
	OPTIMUS	1.2700	1.2700	1.2700	2,310,585		13.85%
RO	Vodafone Romania	3.0700	3.0700	3.0700	6,727,927	22,600,176	29.77%
	Orange Romania	3.0700	3.0700	3.0700	9,678,873		42.83%
	Cosmote	3.0700	3.0700	3.0700	5,067,212		22.42%
	RCS & RDS	3.0700	3.0700	3.0700	1,126,107		4.98%
RS	MTS (Telekom Srbija)	4.2828	4.2828	4.2828	N/A	N/A	N/A
	Telenor	4.2828	4.2828	4.2828	N/A		N/A
	Vip mobile	4.2828	4.2828	4.2828	N/A		N/A
SE ¹⁹	TeliaSonera	1.0508	1.0508	1.0508	4,724,000	11,397,000	41.45%
	Tele2	1.0508	1.0508	1.0508	3,690,000		32.38%
	Telenor	1.0508	1.0508	1.0508	1,897,000		16.64%
	Hi3G	1.0508	1.0508	1.0508	1,086,000		9.53%
SI	Telekom Slovenije	3.2400	3.2400	3.2400	<i>confidential</i>	2,251,117	<i>confidential</i>
	Si.mobil	3.2400	3.2400	3.2400	<i>confidential</i>		<i>confidential</i>
	Tušmobil	3.2400	3.2400	3.2400	<i>confidential</i>		<i>confidential</i>
	T-2	3.2400	3.2400	3.2400	<i>confidential</i>		<i>confidential</i>
SK	Orange	3.1800	3.1800	3.1800	<i>confidential</i>	<i>confidential</i>	41.79%
	Slovak Telecom	3.1800	3.1800	3.1800	<i>confidential</i>		33.05%
	Telefónica	3.1800	3.1800	3.1800	<i>confidential</i>		25.16%
TR ²⁰	Turkcell	1.0401	1.0401	1.0401	34,663,841	68,025,875	50.96%
	Vodafone	1.0733	1.0733	1.0733	19,470,487		28.62%
	Avea	1.2314	1.2314	1.2314	13,891,547		20.42%

¹⁶ MT: data for Q1 2013.¹⁷ NO: number of subscribers as at 01.07.2013.¹⁸ PT: Subscribers at Q2 2013.¹⁹ SE: subscribers as at 31.12.2012.²⁰ TR: number of subscribers in Q2 2013.

UK ²¹	Vodafone	0.9970	0.9970	0.9970	<i>confidential</i>	<i>confidential</i>	<i>confidential</i>
	O2	0.9970	0.9970	0.9970	<i>confidential</i>		<i>confidential</i>
	EE	0.9970	0.9970	0.9970	<i>confidential</i>		<i>confidential</i>
	H3G	0.9970	0.9970	0.9970	<i>confidential</i>		<i>confidential</i>

IV. SMS TERMINATION RATES

1. Assumptions

- The SMS TRs collected in this report reflect nominal wholesale rates applied among domestic²² operators for an off-net SMS exchange, excluding VAT²³.
- SMS TR is applicable to each delivered domestic off-net SMS; therefore, no assumption is necessary about set-up charges or average call durations.
- No countries differentiate between peak time, off-peak time and weekend hours; therefore, there is no need to calculate an individual (i.e. per operator) average tariff weighting peak and off-peak traffic.
- In some countries, operators have bilateral contract agreements implying different rates depending on the volume of SMSs sent across the two networks. These non-linear outlays imply different average rates depending on the volume of SMSs exchanged. In this case, the lowest average rate expected (corresponding to the highest volume of SMSs) has been considered.
- In some countries, an operator's negotiations with other operators results in different SMS TRs. In this case, unless otherwise indicated, a TRs simple average is considered.
- Average SMS tariffs per country are obtained through weighting the SMS tariff of each operator by its market share, measured in terms of subscribers²⁴ (instead of in terms of volume of text messages).
- Two European averages are calculated: a simple average and a weighted average. The latter weights each country's average with the share of the country's subscribers²⁵.
- In some countries, SMS wholesale rates, because they result from private bilateral negotiations and agreement between operators, are considered to be confidential information according to national law.

²¹ UK: MTR figures are the UK average.

²² International SMS TRs in most European countries – also based on bilateral negotiations among operators – generally result in higher levels than the domestic rates represented in this report.

²³ This may diverge from the average revenue from an SMS at wholesale level.

²⁴ The figures used come from the MTR benchmark. In the case of the weighted average, only the countries reporting the number of subscribers are taken into account.

²⁵ Total subscribers per country divided by total European subscribers.

Average SMS TR per country as of July 2013

Country	SMS TR per country (€)
AT	0.0342
BE	0.0496
BG	Confidential
CH ²⁶	0.0411
CY	0.0062
CZ	Confidential
DE	N/A
DK	0.0107
EE ²⁷	0.0231
EL	0.0300
ES	0.0366
FI	Confidential
FR	0.0100
HR	Confidential
HU	0.0474
IE	0.0317
IS	0.0244
IT	0.0362
LT ²⁸	0.0087
LU	N/A
LV	0.0214
FYROM	0.0325
MT	0.0166
NL	0.0560
NO	0.0460
PL	0.0119
PT	0.0127
RO	0.0232
SE	0.0350
SI	Bill & Keep for SMS
SK	0.0304
TR	0.0018
UK	Confidential
Average (S)	0.0247
Average (W)	0.0264

²⁶ CH: different prices are defined between pairs of operators; the weighted average rate at national level is indicated. A different (lower) price is applied between each pair of operators for unbalanced traffic over 110%.

²⁷ EE: different prices are defined between pairs of operators; a simple average for each operator is indicated.

²⁸ LT: different prices are defined between pairs of operators (also B&K); a simple average for each operator is indicated.

V. ANNEXES

1. COUNTRY ABBREVIATIONS

AT	Austria
BE	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LT	Lithuania
LV	Latvia
LU	Luxembourg
FYROM	Former Yugoslav Republic of Macedonia
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
RS	Serbia
SE	Sweden
SI	Slovenia
SK	Slovakia
TR	Turkey
UK	United Kingdom

2. EXCHANGE RATES

Country	1 EURO
BG	1.96
CH	1.23
CZ	25.83
DK	7.46
HR	7.56
HU	295.53
IS	157.52
LT	3.45
LV	0.70
FYROM	61.50
NO	7.61
PL	4.20
RO	4.40
RS	112.08
SE	8.57
TR	2.40
UK	0.85