



**Termination Rates Benchmark Snapshot  
(as of July 2012)**

**Integrated Report  
on Mobile Termination Rates &  
SMS Termination Rates**

**September 2012**

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## 1. Introduction

The present document is the 1<sup>st</sup> Integrated Report on Termination Rates in Europe, providing an overview of Mobile Termination Rates (MTR) and SMS Termination Rates (SMS TR) per country based upon the results of a request for information sent to all NRAs referring to data as of 1st July 2012.

The aim of this report is thus to offer a picture of the rates for interconnection and termination rates in mobile and SMS in Europe.

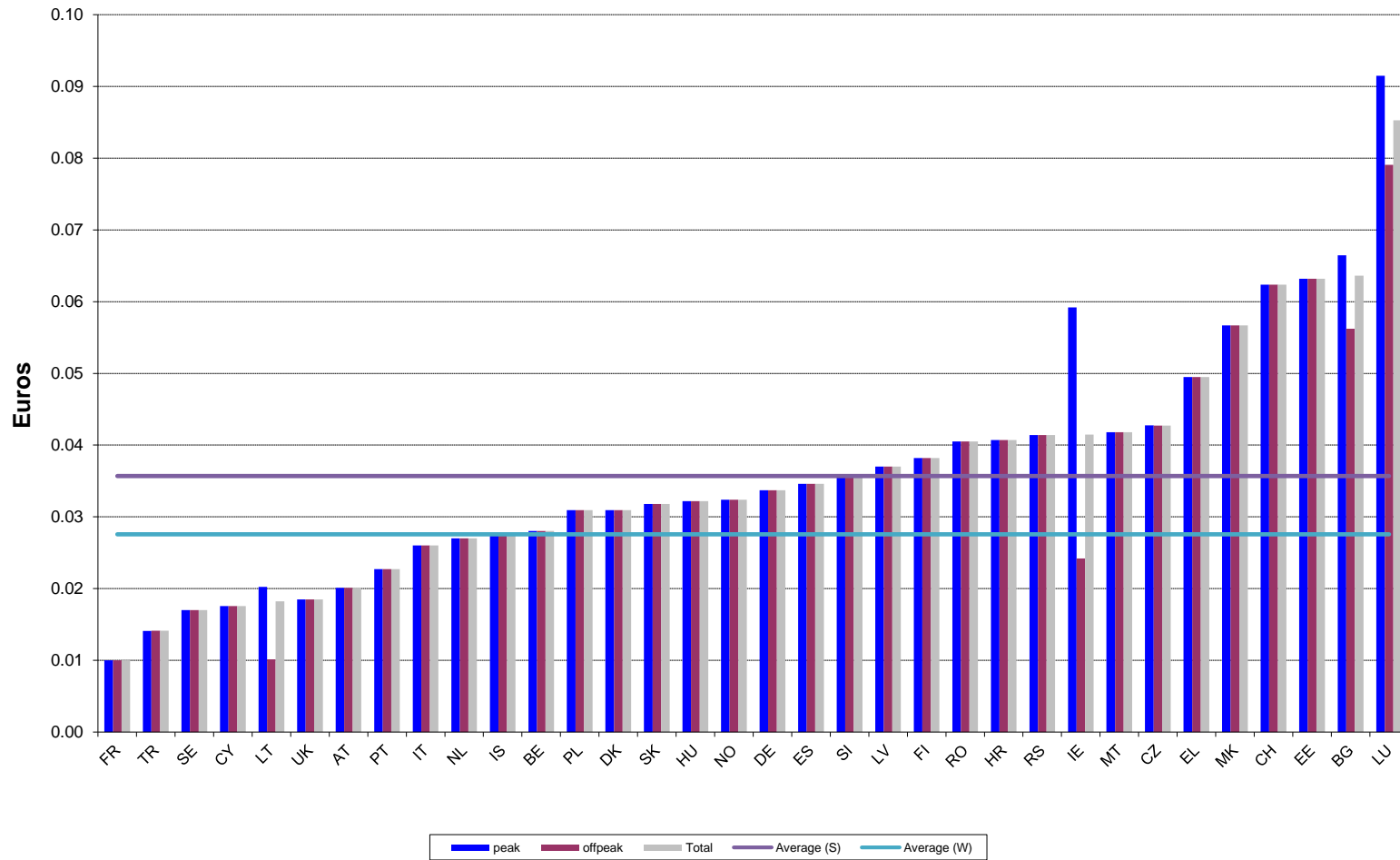
Regarding the monitoring of MTR, BEREC continues the work started by ERG in 2004 with a twice yearly overview report. Regarding the monitoring of SMS TR, BEREC started its own data collection in 2011 with the aim of facilitating this benchmarking comparison to NRAs.

As of July 2012, this is the situation of Termination Rates in Europe:

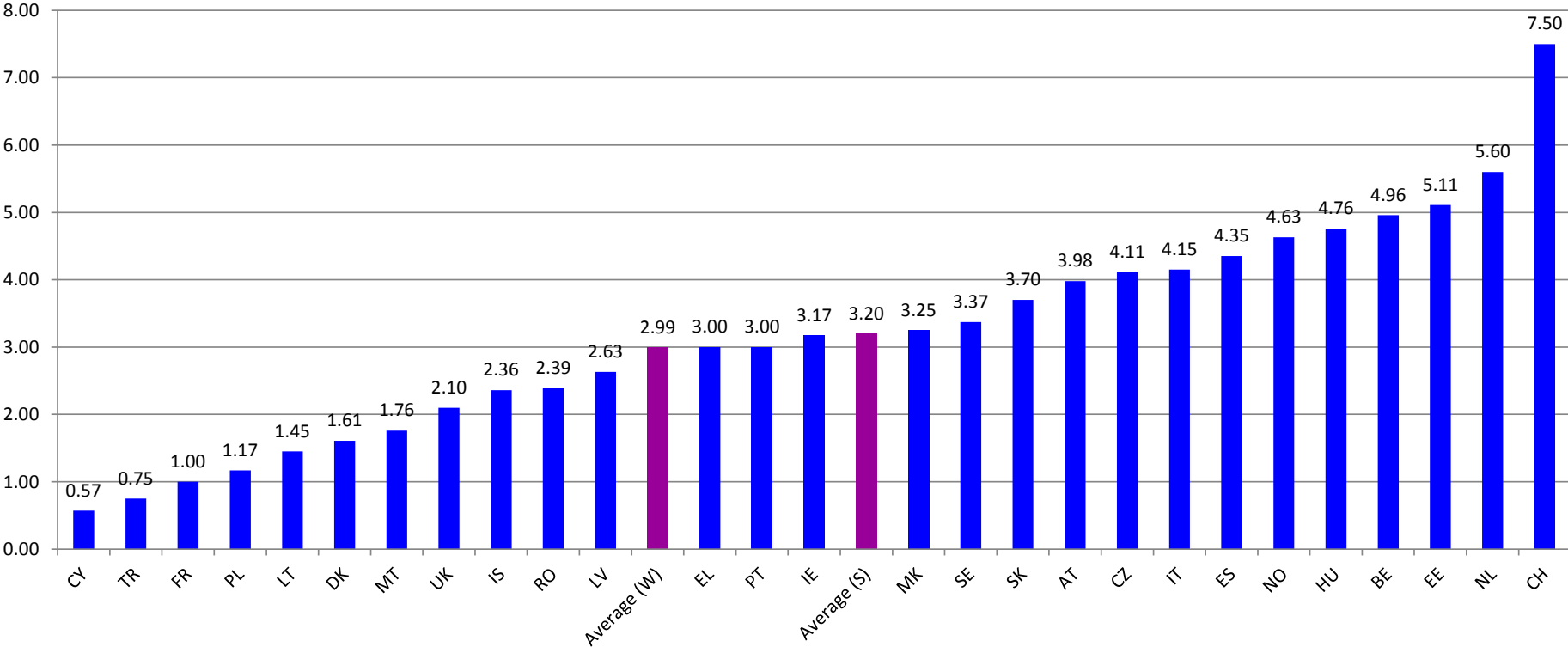
- With regard to MTR, the simple average for EU stands at 0.0357 € per minute, whereas EU weighted average is estimated in 0.0276 € per minute.
- Regarding SMS TR, the EU simple average is placed in 0.0320 € per SMS, whereas the weighted average is reported to be 0.0299 € per SMS.

## 2. Charts

Average MTR per country - July 2012



SMS TR per country – July 2012



### 3. MTR

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#### Assumptions

The assumptions used in the benchmark exercise are the following:

- The benchmark includes fixed to mobile termination charges, in case there is difference between mobile to mobile termination charges.
- In order to obtain a homogenous comparison a three minute average call duration has been assumed.
- Only nominal tariffs are represented in the report, defining them as “The price (in euro/minute) set out by the regulator that works as the maximum price per minute which operators may charge each other (without any adjustment for purchasing power parity or real effects –inflation-).
- Traffic data (voice calls and number of minutes) and peak/off peak ratio is missing for some countries For those countries that have not set an average tariff and, additionally, apply distinct rates -one for the peak period, and another one for off-peak period-, total average tariff per operator has been calculated with the distribution of peak and off-peak traffic.
- Average MTR per country have been obtained by adding each operator’s average MTR multiplied by its market share, measured in terms of subscribers (bearing in mind that ‘subscribers’ may be defined differently).
- In the case of the European weighted average, only the countries that reported the number of subscribers are taken into account.
- The MTR charges are those applicable on 1st July 2012, though assumptions to calculate average charges (for example number of subscribers) may not be as of 1st July 2012.
- Operators with a market share below 1,5% have been excluded from MTR average calculation
- For non-Euro countries, the average for the first quarter of the year, Q2 2012, exchange rate was used (see Annex)

## Average MTR per country as of July 2012

Country	Average MTR per country (€)		
	peak	offpeak	Total
AT	0,0201	0,0201	0,0201
BE	0.0280	0.0280	0.0280
BG	0.0665	0.0562	0.0636
CH	0.0624	0.0624	0.0624
CY	0.0176	0.0176	0.0176
CZ	0.0427	0.0427	0.0427
DE	0,0337	0,0337	0,0337
DK	0.0309	0.0309	0.0309
EE	0.0632	0.0632	0.0632
EL	0.0495	0.0495	0.0495
ES	0.0346	0.0346	0.0346
FI	0.0382	0.0382	0.0382
FR	0.0100	0.0100	0.0100
HR	0.0407	0.0407	0.0407
HU	0,0322	0,0322	0,0322
IE	0.0592	0.0242	0.0415
IS	0.0276	0.0276	0.0276
IT	0.0260	0.0260	0.0260
LT	0.0202	0.0101	0.0182
LU	0.0915	0.0791	0.0853
LV	0.0370	0.0370	0.0370
MK	0.0567	0.0567	0.0567
MT	0.0418	0.0418	0.0418
NL	0.0270	0.0270	0.0270
NO	0.0324	0.0324	0.0324
PL	0.0309	0.0309	0.0309
PT	0.0227	0.0227	0.0227
RO	0.0405	0.0405	0.0405
RS	0.0414	0.0414	0.0414
SE	0.0170	0.0170	0.0170
SI	0.0357	0.0357	0.0357
SK	0.0318	0.0318	0.0318
TR	0.0141	0.0141	0.0141
UK	0.0185	0.0185	0.0185
<b>Average (S)</b>	<b>0.0364</b>	<b>0.0343</b>	<b>0.0357</b>
<b>Average (W)</b>	<b>0.0276</b>	<b>0.0274</b>	<b>0.0276</b>

## Average MTR per operator as of July 2012

Country	Operator	MNOMVNO	2.1. Average effective prices (€)			Subscriber s	Total subscribers	Market Share
			peak	offpeak	Total			
AT	A1 Telekom Austria	MNO	0.0201	0.0201	0.0201	5,200,000	12,672,000	41.04%
	T-Mobile	MNO	0.0201	0.0201	0.0201	3,934,000		31.04%
	Orange	MNO	0.0201	0.0201	0.0201	2,318,000		18.29%
	H3G	MNO	0.0201	0.0201	0.0201	1,220,000		9.63%
BE	Belgacom	MNO	0.0262	0.0262	0.0262	5,310,000	12,849,230	41.33%
	Mobistar	MNO	0.0279	0.0279	0.0279	4,144,300		32.25%
	KPN Group Belgium	MNO	0.0311	0.0311	0.0311	3,394,930		26.42%
BG	Mobiltel	MNO	0.0665	0.0562	0.0637	confidential	10,530,490	44.32%
	Cosmo Bulgaria Mobile	MNO	0.0665	0.0562	0.0636	confidential		36.38%
	BTC	MNO	0.0665	0.0562	0.0634	confidential		19.30%
CH <sup>1</sup>	Swisscom	MNO	0.0569	0.0569	0.0569	6,049,000	9,779,000	61.86%
	Sunrise	MNO	0.0712	0.0712	0.0712	2,116,000		21.64%
	Orange	MNO	0.0712	0.0712	0.0712	1,614,000		16.50%
CY	MTN	MNO	0.0171	0.0171	0.0171	799,626	1,106,196	72.29%
	CYTA	MNO	0.0193	0.0193	0.0193	287,032		25.95%
	Primetel	MVNO	0.0108	0.0108	0.0108	19,538		1.77%
CZ <sup>2</sup>	T-Mobile	MNO	0.0427	0.0427	0.0427	confidential	confidential	37.85%
	Telefónica O2	MNO	0.0427	0.0427	0.0427	confidential		38.18%
	Vodafone	MNO	0.0427	0.0427	0.0427	confidential		23.97%
	MobilKom	MNO	0.0427	0.0427	0.0427	confidential		37.85%
DE <sup>3</sup>	Telekom Deutschland	MNO	0.0338	0.0338	0.0338	35,470,000	113,614,000	31.22%
	Vodafone-D2	MNO	0.0336	0.0336	0.0336	35,806,000		31.52%
	E-plus	MNO	0.0336	0.0336	0.0336	23,504,000		20.69%
	Telefónica Germany	MNO	0.0339	0.0339	0.0339	18,834,000		16.58%
DK <sup>4</sup>	TDC	MNO	0.0309	0.0309	0.0309	3,119,716	6,856,301	45.50%
	Telenor	MNO	0.0309	0.0309	0.0309	1,834,117		26.75%
	Telia	MNO	0.0309	0.0309	0.0309	1,280,109		18.67%
	Hi3G	MNO	0.0309	0.0309	0.0309	490,944		7.16%
	Lyca	MVNO	0.0309	0.0309	0.0309	131,415		1.92%
	Barablu	MVNO	0.0309	0.0309	0.0309	0		0.00%
EE	AS EMT	MNO	0.0632	0.0632	0.0632	801,493	1,936,931	41.38%
	Elisa	MNO	0.0632	0.0632	0.0632	597,394		30.84%
	Tele2	MNO	0.0632	0.0632	0.0632	538,044		27.78%
EL	Cosmote	MNO	0.0495	0.0495	0.0495	confidential	confidential	confidential
	Vodafone	MNO	0.0495	0.0495	0.0495	confidential		confidential
	Wind	MNO	0.0495	0.0495	0.0495	confidential		confidential
ES	TME	MNO	0.0342	0.0342	0.0342	20,119,135	48,630,261	41.37%
	Vodafone	MNO	0.0342	0.0342	0.0342	14,864,319		30.57%

<sup>1</sup> CH: subscribers as of 31/12/2011

<sup>2</sup> CZ: subscribers as of 31/12/2011

<sup>3</sup> DE: subscribers as of Q1 2012.

<sup>4</sup> DK: subscribers as of 31/12/2011



	Orange	MNO	0.0342	0.0342	0.0342	10,780,319		22.17%
	Xfera	MNO	0.0407	0.0407	0.0407	2,866,488		5.89%
FI	DNA	MNO	0.0382	0.0382	0.0382	n.a.	n.a.	n.a.
	Elisa	MNO	0.0382	0.0382	0.0382	n.a.		n.a.
	TeliaSonera	MNO	0.0382	0.0382	0.0382	n.a.		n.a.
	ÅMT	MNO	0.0382	0.0382	0.0382	n.a.		n.a.
FR	Orange France	MNO	0.0100	0.0100	0.0100	confidential	confidential	-
	SFR	MNO	0.0100	0.0100	0.0100	confidential		-
	Bouygues Telecom	MNO	0.0100	0.0100	0.0100	confidential		-
HR <sup>5</sup>	HT	MNO	0.0402	0.0402	0.0402	2,349,834	5,005,196	46.95%
	VIPnet	MNO	0.0402	0.0402	0.0402	1,963,984		39.24%
	Tele 2	MNO	0.0442	0.0442	0.0442	691,378		13.81%
HU	T-Mobile	MNO	0.0322	0.0322	0.0322	5,283,217	11,527,858	45.83%
	Telenor	MNO	0.0322	0.0322	0.0322	3,611,678		31.33%
	Vodafone	MNO	0.0322	0.0322	0.0322	2,632,963		22.84%
IE <sup>6</sup>	Vodafone	MNO	0.0477	0.0241	0.0368	n.a.	n.a.	42.4%
	O2	MNO	0.0518	0.0192	0.0368	n.a.		29.1%
	Meteor	MNO	0.0659	0.0100	0.0368	n.a.		20.5%
	Hutchinson 3G	MNO	0.1138	0.0600	0.0748	n.a.		4.8%
	Tesco Mobile	MVNO	0.1541	0.1082	0.1254	n.a.		3%
IS	Siminn	MNO	0.0276	0.0276	0.0276	134,588	324,718	41.45%
	Vodafone	MNO	0.0276	0.0276	0.0276	101,241		31.18%
	Nova	MNO	0.0276	0.0276	0.0276	88,889		27.37%
	Tal	MVNO	0.0276	0.0276	0.0276	18,276		5.63%
IT	Telecom Italia	MNO	0.0250	0.0250	0.0250	32,225,287	92,255,107	34.93%
	Vodafone Omnitel	MNO	0.0250	0.0250	0.0250	29,628,982		32.12%
	Wind Telecomunicazioni	MNO	0.0250	0.0250	0.0250	21,131,537		22.91%
	H3G	MNO	0.0350	0.0350	0.0350	9,269,301		10.05%
LT	Omnitel	MNO	0.0202	0.0101	0.0182	1,888,721	4,765,915	39.63%
	Tele2	MNO	0.0202	0.0101	0.0182	1,825,379		38.30%
	Bite	MNO	0.0202	0.0101	0.0182	1,051,815		22.07%

<sup>5</sup> HR: subscribers as of Q12012

<sup>6</sup> Furthermore, Irish mobile operators set weekend MTR:

Average effective prices	
	Weekend Tariff (€)
Vodafone	0.0241
O2	0.0196
Meteor	0.0100
Hutchinson 3G	0.0050
Tesco Mobile (MVNO)	0.0883

LU	EPT	MNO	0.0880	0.0760	0.0820	n.a.	n.a.	52.00%
	Tango	MNO	0.0880	0.0760	0.0820	n.a.		34.00%
	Orange	MNO	0.1130	0.0980	0.1055	n.a.		14.00%
LV <sup>7</sup>	LMT	MNO	0.0366	0.0366	0.0366	1,703,422	3,487,514	48.84%
	Tele2	MNO	0.0366	0.0366	0.0366	1,094,704		31.39%
	Bite latvija	MNO	0.0366	0.0366	0.0366	661,651		18.97%
	Telecom Baltija	MNO	0.0874	0.0874	0.0874	27,737		0.80%
MK	T-Mobile	MNO	0.0487	0.0487	0.0487	1,119,773	2,197,148	50.96%
	ONE	MNO	0.0650	0.0650	0.0650	496,265		22.59%
	VIP	MNO	0.0650	0.0650	0.0650	581,110		26.45%
MT	Go Mobile	MNO	0.0418	0.0418	0.0418	191,174	509,936	37.49%
	Melita Mobile	MNO	0.0418	0.0418	0.0418	259,659		50.92%
	Vodafone	MNO	0.0418	0.0418	0.0418	59,103		11.59%
NL	KPN	MNO	0.0270	0.0270	0.0270	7,187,000	20,604,000	34.88%
	Vodafone	MNO	0.0270	0.0270	0.0270	5,671,000		27.52%
	T-Mobile	MNO	0.0270	0.0270	0.0270	4,927,000		23.91%
	All MVNOs	MVNO	0.0270	0.0270	0.0270	2,819,000		13.68%
NO <sup>8</sup>	Telenor	MNO	0.0265	0.0265	0.0265	2,862,614	5,578,791	51.31%
	NetCom	MNO	0.0265	0.0265	0.0265	1,444,886		25.90%
	Network Norway	MNO	0.0794	0.0794	0.0794	564,703		10.12%
	Tele2	MVNO	0.0331	0.0331	0.0331	487,531		8.74%
	TDC	MVNO	0.0265	0.0265	0.0265	34,037		0.61%
	Ventelo	MVNO	0.0265	0.0265	0.0265	133,186		2.39%
	Lyca	MVNO	0.0265	0.0265	0.0265	51,834		0.93%
PL	Polkomtel	MNO	0.0290	0.0290	0.0290	13,977,900	49,548,900	28.21%
	PTK	MNO	0.0290	0.0290	0.0290	14,629,200		29.52%
	PTC	MNO	0.0290	0.0290	0.0290	13,877,700		28.01%
	P4	MNO	0.0426	0.0426	0.0426	7,064,100		14.26%
PT	TMN+MVNO	MNO	0.0227	0.0227	0.0227	7,374,579	16,593,833	44.44%
	VODAFONE+M VNO	MNO	0.0227	0.0227	0.0227	6,658,291		40.13%
	OPTIMUS	MNO	0.0227	0.0227	0.0227	2,560,963		15.43%
RO <sup>9</sup>	Orange	MNO	0.0405	0.0405	0.0405	Confidential	confidential	-
	Vodafone	MNO	0.0405	0.0405	0.0405	Confidential		-
	Cosmote	MNO	0.0405	0.0405	0.0405	Confidential		-
	RCS & RDS	MNO	0.0405	0.0405	0.0405	Confidential		-
RS	MTS (Telekom Srbija)	MNO	0.0414	0.0414	0.0414	N/A	N/A	N/A
	Telenor	MNO	0.0414	0.0414	0.0414	N/A		N/A
	Vip mobile	MNO	0.0414	0.0414	0.0414	N/A		N/A
SE <sup>10</sup>	TeliaSonera	MNO	0.0170	0.0170	0.0170	4,678,000	11,077,000	42.23%
	Tele2	MNO	0.0170	0.0170	0.0170	3,659,000		33.03%
	Telenor	MNO	0.0170	0.0170	0.0170	1,799,000		16.24%
	Hi3G	MNO	0.0170	0.0170	0.0170	941,000		8.50%
SI	Telekom Slovenije	MNO	0.0352	0.0352	0.0352	confidential	2,184,252	57.21%

<sup>7</sup> LV: Figures given as subscribers correspond to granted numbers

<sup>8</sup> NO: subscribers as of 31/12/2011

<sup>9</sup> RO: subscribers as of 31/12/2011

<sup>10</sup> SE: subscribers as of 31/12/2011

	Si.mobil	MNO	0.0352	0.0352	0.0352	confidential		29.57%
	Tušmobil	MNO	0.0388	0.0388	0.0388	confidential		11.20%
	T-2	MNO	0.0423	0.0423	0.0423	confidential		2.02%
SK	Telefonica	MNO	0.0318	0.0318	0.0318	n.a.	n.a.	44.24%
	Slovak Telekom	MNO	0.0318	0.0318	0.0318	n.a.		33.53%
	Orange	MNO	0.0318	0.0318	0.0318	n.a.		22.23%
TR	Turkcell	MNO	0.0135	0.0135	0.0135	34,710,962	66,140,078	52.48%
	Vodafone	MNO	0.0139	0.0139	0.0139	18,429,111		27.86%
	Avea	MNO	0.0160	0.0160	0.0160	13,000,005		19.66%
UK	Everywhere Everything	MNO	0.0185	0.0185	0.0185	confidential	confidential	-
	O2	MNO	0.0185	0.0185	0.0185	confidential		-
	Vodafone	MNO	0.0185	0.0185	0.0185	confidential		-
	H3G	MNO	0.0185	0.0185	0.0185	confidential		-

## 4. SMS TR

### Assumptions

By comparison with voice MTR, SMS TR are easier to understand and to compare:

- Most countries do not differentiate between peak time, off-peak time and weekend hours. According to the responses received, there is no exception in Europe.
- SMS TR are applicable to each *off net SMS* that is well delivered, so there is no assumption regarding set-up charges or average call durations. Slovenia and Latvia are the only countries that apply a "Bill & Keep" system for SMS. The scope of the benchmark is confined to national termination prices.
- In some countries, different rates depending on the total number of SMS sent are applied. For those countries, the rates corresponding to the biggest volumes (i.e. lowest rates) are selected to make European comparisons.
- Average SMS TR per country are obtained through pondering the SMS tariff of each operator by its market share, measured in terms of subscribers.
- Two European averages based on the answers received are calculated, as it is also done for voice MTR benchmark: a simple average and a weighted average, pondering each country's average with the share of the country's subscribers (Total subscribers per country / Total European subscribers). In the case of the European weighted average, only the countries that reported the number of subscribers are taken into account.
- In the case of Switzerland, SMS TR are not wholesale interconnection prices but rather the result of an SMS-Interworking agreement among operators. P2P-SMS-Traffic is assumed symmetric. Therefore, there is a kind of 'Bill & Keep' system established between Swiss MNOs.

- Regarding the number of subscribers, it must be taken into account that different methods to evaluate it are used among European countries (especially in the case of pre-paid consumers).

### SMS TR per country as of July 2012

Country	SMS TR per country
AT	0,0398
BE	0,0496
BG	confidential data
CH	0.0750
CY	0.0057
CZ	confidential data
DE	N/A
DK	0,0161
EE	0,0511
EL	0,0300
ES	0,0435
FI	confidential
FR	0,0100
HR	confidential
HU	0.0476
IE	0,0317
IS	0,0236
IT	0.0415
LT	0.0145
LU	N/A
LV	0.0263
MK	0,0325
MT	0.0176
NL	0.0560
NO	0.0463
PL	0.0117
PT	0.0300
RO	0.0239
RS	n.a.
SE	0.0337
SI	Bill and keep
SK	0.0370
TR	0.0075
UK	0.0210
<b>Average (S)</b>	<b>0.0320</b>
<b>Average (W)</b>	<b>0.0299</b>

## 5. ANNEX

### Exchange rates as of July 2012<sup>11</sup>

Country	Euro
BG	1,96
CH	1,20
CZ	25,27
DK	7,44
HR	7,52
HU	293,98
IS	159,10
LT	3,45
LV	0,70
MK	61,50
NO	7,56
PL	4,26
RO	4,43
RS	115,82
SE	8,91
TR	2,31
UK	0,81

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<sup>11</sup> European Central Bank website:  
<http://sdw.ecb.europa.eu/browseSelection.do?DATASET=0&FREQ=Q&CURRENCY=&node=2018794>

## 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
MK	Former Yugoslav Republic of Macedonia
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
RS	Republic of Serbia
SE	Sweden
SI	Slovenia
SK	Slovakia
TR	Turkey
UK	United Kingdom