

Mobile Call Prices 2008 International Comparison



Viestintävirasto
Kommunikationsverket
Finnish Communications
Regulatory Authority

DESCRIPTION

Date of publication
30 May 2008

Authors Pöyry Telecom Oy		Type of publication Survey	
		Assigned by FICORA (Contact Person Päivi Peltola-Ojala, tel. +358 9 6966 732)	
Name of publication MOBILE CALL PRICES 2008 - INTERNATIONAL COMPARISON			
Abstract <p>The survey included an international comparison of the prices of mobile services in Europe. The survey comprised calls, text messages and mobile data services.</p> <p>For each country, price baskets for mobile subscriptions were calculated for three different user profiles based on different consumer habits. The baskets differed in terms of the number and direction of phone calls and text messages and the amount of mobile data transmitted. In addition, a separate user profile for mobile broadband services was included.</p> <p>The survey included 19 European countries: the EU-15 and Iceland, Norway, Switzerland and Estonia. Three largest mobile operators in terms of market shares were included from each country. Operators were not required to have their own mobile networks, but virtual operators and other operators without their own networks are not among the ones with largest market shares. However, the survey did take into account the more affordable trademarks of the large operators.</p> <p>The country-specific price baskets include from each operator the least expensive consumer subscription that corresponds to the user profile in question. Similarly, the least expensive alternatives among separate call, text message and data packages were chosen for each basket. The price basket calculations included only contract subscriptions which means that prepaid subscriptions that are paid for in advance were excluded from the analysis. Momentary sales offers and discount campaigns as well as tie-in sales that include terminal equipment fell outside the scope of the survey. The price information was gathered from the public price lists of the operators in April 2008 and indicated the rates valid on 1 April 2008.</p> <p>According to the survey, Finland had the over-all lowest mobile call prices in Europe. Finnish mobile broadband subscriptions were also the least expensive in Europe. Price differences among the countries varied in different user profiles. Finland had the lowest prices in all profiles except for the profile that depicted very intensive use. In that profile, Luxembourg had the lowest prices. Other countries with generally low prices were the other Nordic countries, Estonia, the United Kingdom and the Netherlands. The countries with the highest basket prices were Switzerland, France, Ireland, Spain and Italy.</p> <p>The results of one of the user profiles were compared to results from previous years. The general price development has been descending, and especially during the past year, prices have decreased significantly. The differences between prices in different countries have also diminished.</p>			
Keywords mobile calls, mobile broadband, price comparison			
Serial name Viestintäviraston julkaisuja/suosituksia/GFI-dokumentteja			
Pages, total 41	Language English	Price 8.20 €	Confidence status Public
Distributed by FICORA		Published by FICORA	

Postal address
PO Box 313
FI-00181 HELSINKI
FINLAND

Visiting address
Itämerenkatu 3 A
00180 HELSINKI
Business ID 0709019-2

Telephone
+358 9 69 661
Telefax
+358 9 6966 410

E-mail
info@ficora.fi
Homepage
http://www.ficora.fi

FOREWORD

Collecting data on communications markets is one of the key statutory responsibilities of FICORA. FICORA collects data on telecommunication, media and postal operations directly from actors in the fields as well as by commissioning surveys and reports. Price comparison surveys are one way of assessing the functionality of communications markets. FICORA monitors regularly the prices of communications services offered to consumers, both on the national and international level.

The survey was conducted in the spring of 2008. It was carried out for FICORA by Pöyry Telecom Oy. In previous years, the survey has been published by the Ministry of Transport and Communications.

The aim of the survey was to investigate the price level of mobile phone services in European countries. The survey included calls, text messages and data transmission services, the last-mentioned being included for the first time. The market for mobile broadband services developed and grew strongly in 2007; therefore, including it in the survey is justified.

The survey presents a good and reliable picture of the price level of mobile phone services in Europe. According to the survey, the price level in the Nordic countries is significantly below the European average, and Finland in particular stands out by having the lowest prices for nearly all of the services compared.

Helsinki, 10 June 2008

Päivi Peltola-Ojala



FICORA

Mobile Call Prices 2008 – International Comparison

 Competence. Service. Solutions.

PÖYRY

Copyright © FICORA

This report was commissioned by FICORA and composed by Pöyry Telecom Oy. The content and results of the report are based on data from public sources gathered by Pöyry Telecom. Pöyry Telecom is not accountable for the correctness of the price information collected for the report. Pöyry Telecom is not liable for possible damages to third parties resulting from or connected to the use of the information in the report, regardless of whether the damage is direct or consequential or how the damage is caused.

TABLE OF CONTENTS

TABLE OF CONTENTS	1
FIGURES	2
TABLES	3
1 INTRODUCTION	4
1.1 Background	4
1.2 Aims of the survey	4
1.3 Survey method	4
1.4 Definition of price baskets for the user profiles.....	6
2 MOBILE MARKETS IN THE SURVEY COUNTRIES	10
2.1 Subscription volumes in the mobile network.....	10
2.2 Mobile operators	12
3 PRICE BASKET COMPARISON OF MOBILE SUBSCRIPTIONS	15
3.1 Price Basket I	15
3.2 Price Basket II.....	18
3.3 Price Basket III	19
4 PRICE BASKET COMPARISON OF MOBILE BROADBAND SERVICES	21
4.1 Bases of the price comparison	21
4.2 Factors affecting subscription price	21
4.3 Country-specific price baskets for subscriptions meeting the minimum requirements	22
4.4 More extensive examination of price baskets of mobile broadband subscriptions.....	23
5 SUMMARY	25
SOURCES	29
Appendix 1. Survey countries	30
Appendix 2. Telecommunications operators included in the survey	31
Appendix 3. Mobile subscriptions included in the survey	33
Appendix 4. Providers of mobile broadband subscriptions included in the survey.....	35

FIGURES

Figure 1. Shares of the total subscription volume held by the three largest operators, 31 Dec 2007..	13
Figure 2. Price basket values for User Profile I in April 2008.....	15
Figure 3. Development of minimum, maximum and average values of price baskets for User Profile I.	17
Figure 4. Development of the price basket value for User Profile I in certain countries in 2005–2008.	18
Figure 5. Price basket values for User Profile II in April 2008.	19
Figure 6. Price basket values for User Profile III in April 2008.....	20
Figure 7. Values of country-specific price baskets of mobile broadband subscriptions in April 2008.	22
Figure 8. Operator prices of mobile broadband subscriptions in April 2008.....	23
Figure 9. Price basket values of mobile broadband subscriptions in April 2008.....	24

TABLES

Table 1. Price basket for User Profile I.....	7
Table 3. Price basket for User Profile III	9
Table 4. Price basket for mobile broadband services.....	9
Table 5. Mobile markets in the survey countries in numbers, 31 Dec 2007.....	11
Table 6. Price basket values for User Profile I in 2007 and 2008 (€/month).....	16
Table 7. Development of mobile call basket prices for User Profile I 2005–2008 (€/month).....	17
Table 8. Country-specific price basket values of mobile calls in April 2008 (€/month).	26

1 INTRODUCTION

1.1 Background

FICORA's duty is to ensure that the communications market is functional and effective and to promote the technical functionality and safety of communications networks. The objective is to make sure that there is competition in the communications market and to guarantee that all users have access to undisturbed and safe communications connections.

One way to assess the functionality of national communications markets is the international comparison of telecommunications services. The development of mobile call prices has been examined in Finland since 2001. The present survey is the eighth overall and the first commissioned by FICORA. Previously, the survey has been conducted by the Ministry of Transport and Communications.

The Mobile Call Prices 2008 survey has broadened the scope of the previous surveys by using country-specific price baskets for three different user profiles and one for mobile broadband services instead of using only one profile as in previous analyses.

1.2 Aims of the survey

The survey includes an international comparison of mobile call prices. The following functions are performed:

- For each country, price baskets for mobile subscriptions are calculated for three different user profiles based on varying numbers of phone calls and text messages and their directivity as well as the amount of mobile data.
- The values of the price baskets are analysed and compared between the countries involved, and the development of price basket values is compared to the data history of User Profile I.
- For each country, a price basket for mobile broadband services is calculated, and the price basket values are analysed and compared among the countries investigated.
- Background information on the mobile communications markets, such as the number and market shares of telecommunications operators, is presented regarding each country.

1.3 Survey method

In the survey, price basket comparisons are made of mobile phone subscriptions (Chapter 3) and mobile broadband services (Chapter 4). The method used in the survey is a price comparison based on price lists of individual telecommunications services. The comparison is used to calculate commensurable price baskets for each country.

The country-specific baskets for mobile phone subscriptions are calculated for three different user profiles which reflect different consumer habits. A price basket means the monthly charge a user pays for services included in a user profile.

The survey examines basket prices in each country, not the prices of individual mobile phone subscriptions. Operators carry weighted values in the country price baskets based on their market shares. The larger the market share of an operator is in terms of the number of subscriptions, the more weighted is its value when calculating the country-specific price baskets.

The price comparison of mobile broadband services is conducted in the same way as the comparison between the prices of mobile phone subscriptions. The price basket value for mobile broadband services is calculated only for one user profile.

The method is based on price basket surveys of mobile call prices conducted in previous years to ensure that the results are comparable¹. User Profile I corresponds to the profile used in previous price comparisons.

Countries included in the survey

The survey focuses on the prices of mobile phone subscriptions and mobile broadband services in the old EU Member States (the EU-15²) and in Estonia, Iceland, Norway and Switzerland. Estonia was not included in the previous price comparisons. Countries included in the survey and the country codes used in figures and tables are presented in Appendix 1.

Operators included in the survey

In order to calculate the price baskets for each country, price information was gathered from three mobile operators with the largest market shares. Unlike in previous surveys, the scope included service operators that do not have their own mobile networks.

Of the three operators with the largest market shares, the price comparison of mobile broadband services includes only those who provide services that meet the minimum requirements set for mobile broadband services in the present survey (see section 1.4)

Operators are weighted in the calculations of the country-specific price baskets based on market share information from the end of the previous year (31 Dec 2007). Market share estimations based on subscription volumes are from the publication Mobile Communications Europe. Operators included in the survey and their subscription volumes and market shares are presented in Appendix 2.

Subscriptions included in the survey

The price baskets of each country comprise subscriptions from all three largest mobile operators. From each operator, the least expensive consumer subscription that corresponds to the user profile is included. This way, the results reflect the actual price level of the services for different patterns of consumption.

Because the present survey calculates the price baskets for three different mobile subscription user profiles and for mobile broadband services, thereby differing from previous surveys, the least expensive subscription alternative and pricing model are chosen for each basket separately. Regarding the pricing model of voice service, both minute-based pricing and call packages with fixed monthly prices are accepted. For the comparison of text messages, the least expensive alternative among fixed-price SMS packages and messages priced per unit is chosen. Regarding mobile data transmission, the comparison includes pricing based on megabytes, a fixed-price monthly data package or a mobile broadband depending on which alternative is the most affordable for the consumer. If the contract subscription includes monthly call credits, text messages or data transmission, this is taken into account when calculating the price basket values.

¹ See e.g. Prices of Mobile Calls in 2007. International Comparison. Publications of the Ministry of Transport and Communications 32/2007. <http://www.lvm.fi/fileserver/prices%20of%20%20mobile%20calls%20in%202007.pdf>.

² Member States of the European Union prior to 1 May 2004.

The comparison includes only contract subscriptions. Fixed-term subscriptions in which the minimum contract period is, for instance, 12 or 24 months are also included in the analysis. Pre-paid subscriptions, where the charge is paid in advance, are not included in the survey.

The survey investigates the prices of individual telecommunications services. Tie-in sales subscriptions which include both a subscription and terminal equipment are excluded from this survey.

If an operator markets subscriptions under multiple trademarks, or brands, the least expensive subscription that meets the user profile requirements is chosen for the analysis from the operator in question. For instance, the Finnish company Elisa markets subscriptions under Saunalahti and Kolumbus trademarks in addition to the Elisa brand. Correspondingly, TeliaSonera uses also the TeleFinland trademark in addition to Sonera.

Momentary subscription sales offers and discount campaigns are excluded from the analysis.

Mobile subscriptions and providers of mobile broadband services are listed in Appendixes 3 and 4.

Price information

The price information was gathered in April 2008 and indicates the rates valid on 1 April 2008. The price comparison in the survey is based on price lists of individual telecommunications services. The price information was obtained from public price lists on the mobile operators' websites. All prices are in euros and include taxes. The exchange rates used are the average rates for euro 1 April 2008 listed in Appendix 1.

1.4 Definition of price baskets for the user profiles

The commensurable country-specific price baskets are determined for three different mobile phone subscription user profiles and for mobile broadband services. This way, each country will have a comparable price basket value for each user profile and for mobile broadband services. User Profile I is comparable with the user profile used in previous surveys. Other user profiles are included for the first time.

Depending on the user profile, a price basket includes the following cost factors:

- The monthly fee of the subscription,
- Call charges including possible connection fees,
- SMS charges,
- Mobile data charges,
- Paper invoice charges.

Startup fees for subscriptions or services or possible equipment charges are not included in the price basket.

Price Basket I

The price basket for User Profile I was defined already in 2002 by a working group assembled by the Ministry of Transport and Communications and representing different operator groups. The cost components of the basket consist of telecommunications services. The price basket presents also assumptions of how calls and text messages are directed to different networks and when calls are made. Table 1 presents the price basket for User Profile I.

Table 1. Price basket for User Profile I

Price Basket I
Cost factors
<ul style="list-style-type: none"> • Calls 150 minutes per month, • Calls 50 pcs. per month, • Call duration 3 minutes per call, • Text messages 25 pcs. per month, • Paper invoice once a month.
Direction of calls and text messages
<ul style="list-style-type: none"> • To mobile networks 75% (112.5 minutes). Of the calls, the operator's market share + 15% are directed to the mobile operator's own network. • To the fixed telephone network 25% (37.5 minutes). • Text messages are directed to the operator's own and other networks in the same way as calls. • All calls and text messages are domestic.
Time of calls
<ul style="list-style-type: none"> • Weekdays 35% of calls, • Evenings and weekends 65% of calls.

Price Basket II

Table 2 presents the price basket for User Profile II. Compared to User Profile I, User Profile II comprises more voice calls and more text messages. Direction and time of calls

and text messages are the same as in User Profile I. User Profile II has not been included in the previous price basket surveys.

Table 2. Price basket for User Profile II

Price Basket II
Cost factors
<ul style="list-style-type: none"> • Calls 300 minutes per month, • Calls 100 pcs. per month, • Call duration 3 minutes per call, • Text messages 100 pcs. per month, • Paper invoice once a month.
Direction of calls and text messages
<ul style="list-style-type: none"> • To mobile networks 75% (225 minutes). Of the calls, the operator's market share + 15% are directed to the mobile operator's own network. • To the fixed telephone network 25% (75 minutes). • Text messages are directed to the operator's own and other networks in the same way as calls. • All calls and text messages are domestic.
Time of calls
<ul style="list-style-type: none"> • Weekdays 35% of calls, • Evenings and weekends 65% of calls.

Price Basket III

User Profile III presented in Table 3 represents intensive use of a mobile phone subscription. In the profile, the numbers of calls and text messages are considerably larger than in User Profiles I and II. Since the call duration is 10 minutes, the number of calls remains the same as in User Profile II. The profile includes 50 megabytes of mobile data transmission per month. In accordance with the restrictions mentioned above, mobile broadband is also accepted in mobile data services if it is the least expensive alternative.

Table 3. Price basket for User Profile III

Price Basket III
Cost factors
<ul style="list-style-type: none"> • Calls 1,000 minutes per month, • Calls 100 pcs. per month, • Call duration 10 minutes per call, • Text messages 200 pcs. per month, • Mobile data 50 MB per month, • Paper invoice once a month.
Direction of calls and text messages
<ul style="list-style-type: none"> • To mobile networks 75% (750 minutes). Of the calls, the operator's market share + 15% are directed to the mobile operator's own network. • To the fixed telephone network 25% (250 minutes). • Text messages are directed to the operator's own and other networks in the same way as calls. • All calls and text messages are domestic. • Data transmission is domestic.
Time of calls
<ul style="list-style-type: none"> • Weekdays 35% of calls, • Evenings and weekends 65% of calls.

Price basket for mobile broadband services

The survey includes also a comparison of mobile broadband service prices. The basket price for each country is calculated as an average price of the three largest mobile operators, weighted by the market shares of the operators. Characteristics listed in Table 4 are required of the mobile broadband subscription. If an operator does not provide a mobile broadband subscription that meets the minimum requirements, a subscription from the operator in question is not included in the price basket value of the country examined.

Table 4. Price basket for mobile broadband services

Price Basket for Mobile Broadband Services
Minimum requirements for the service
<ul style="list-style-type: none"> • Fixed monthly price, • Unlimited data transmission, • Nominal speed of data transmission at least 384 kbit/s (downstream), • Data transmission is domestic, • Paper invoice once a month.

Depending on the service provider, the use of mobile broadband services is possible with a USB modem, data card or a 3G mobile phone connected to a computer. Charges for modems or data cards are not included in the price basket.

2 MOBILE MARKETS IN THE SURVEY COUNTRIES

2.1 Subscription volumes in the mobile network

Table 5 contains information on the mobile markets of the countries included in the survey. The combined number of mobile subscriptions in all of the survey countries totalled approximately 466 million at the end of 2007. Growth from the previous year is approximately 10 per cent.

The largest country in terms of subscription volume is Germany with 93 million subscriptions. Its volume has grown approximately 14 per cent in a year. Germany's figure constitutes nearly 20 per cent of the total number of subscriptions of all countries in the survey. This is also Germany's weighting when calculating the average price basket value weighted by subscription volume (average value).

After Germany, the countries with largest subscription volumes are Italy and the United Kingdom. Even though the three countries have equal populations, France in the fourth place is considerably behind Italy and the UK in terms of subscription volume. France has the lowest subscription penetration of all the countries in the survey (89%). It is the only survey country under 100 per cent. Italy had the highest subscription penetration at the end of 2007 (148%). Greece and Luxembourg followed with 142% and 138% respectively.

In terms of subscription volume, Finland is the fifth smallest country. Finland has a weighting of 1.3 per cent when calculating the average price basket weighted by subscription volume.

Table 5. Mobile markets in the survey countries in numbers, 31 Dec 2007.

Country	Subscriptions Pc.	Penetration %	3G subscriptions pc. share,%		Prepaid %	Weighting %
Austria (AT)	9,775,300	119%	2,138,000	21.9%	37.5%	2.1%
Belgium (BE)	10,536,610	101%	404,720	3.8%	55.2%	2.3%
Denmark (DK)	6,127,000	112%	781,000	12.7%	22.6%	1.3%
Estonia (EE)	1,587,020	119%	70,210	4.4%	49.6%	0.3%
Finland (FI)	6,040,600	115%	1,305,000	21.6%	9.9%	1.3%
France (FR)	54,611,180	89%	6,440,000	11.8%	36.8%	11.7%
Germany (DE)	92,528,260	112%	10,833,000	11.7%	52.5%	19.9%
Greece (EL)	15,252,310	142%	920,750	6.0%	65.7%	3.3%
Iceland (IS)	326,100	107%	7,600	2.3%	46.2%	0.1%
Ireland (IE)	5,058,350	122%	86,000	17.0%	73.3%	1.1%
Italy (IT)	86,160,760	148%	23,134,000	26.8%	89.1%	18.5%
Luxembourg (LU)	665,560	138%	81,000	12.2%	50.2%	0.1%
Netherlands (NL)	17,369,840	105%	2,409,000	13.9%	49.0%	3.7%
Norway (NO)	5,038,880	109%	1,210,000	24.0%	26.0%	1.1%
Portugal (PT)	13,137,800	123%	3,200,000	24.4%	76.5%	2.8%
Spain (ES)	49,206,000	122%	10,376,000	21.1%	41.2%	10.6%
Sweden (SE)	10,525,000	117%	2,554,000	24.3%	46.5%	2.3%
Switzerland (CH)	8,051,400	106%	1,242,600	15.4%	38.3%	1.7%
United Kingdom (UK)	73,605,790	121%	12,514,200	17.0%	65.3%	15.8%
Total	465,603,760	120%	80,482,080	17.3%	57.7%	100.0%
Information on prepaid shares of the Netherlands, Spain, Iceland, Luxembourg, Finland and Estonia from 30 Sept 2007, information on other countries from 31 Dec 2007.						
Source: Mobile Communications Europe (2008). Issues 464-469.						

The number of Third Generation (3G) subscriptions in the survey countries was approximately 80 million at the end of 2007, the growth from the previous year being approximately 60 per cent. The number of 3G subscriptions was highest in Italy, over 23 million. Italy's volume is nearly twice as large as that of the UK which had the second largest volume.

The share of 3G subscriptions of all mobile subscriptions was highest in Italy as well, nearly 27 per cent. Over a fifth of all subscriptions were 3G subscriptions also in Portugal (24.4%), Sweden (24.3%), Norway (24.0%), Spain (21.1%), Austria (21.9%) and Finland (21.6%).

The present survey included only contract subscriptions. However, prepaid subscriptions constituted over a half of all subscriptions in eight of the survey countries. Italy had relatively the most prepaid subscriptions with a share of nearly 90 per cent. In Portugal and Ireland, three quarters of subscriptions are prepaid ones.

The share of prepaid subscription was clearly lowest in Finland, only approximately 10 per cent. Denmark had the second lowest share (22.6%).

2.2 Mobile operators

Altogether 56 mobile operators from the survey countries were included in the analysis. Fifty-three of the operators provided also 3G services. With the exception of Norway, from where only two actual operators were included, the prices of mobile calls and mobile broadband services of three largest operators were analysed from each country.

The price information of mobile calls was gathered primarily from the websites of the operators and supplemented with enquires to the operators. Necessary information regarding mobile broadband subscriptions was obtained from 52 operators because, based on information on the websites, mobile broadband services were not yet available in Greece in April 2008. Price information on the mobile broadband subscription was not obtained from Iceland Telecom either, despite enquiries. Furthermore, because the market share of the Icelandic operator Nova is marginal (0.2%), the analysis of mobile broadband prices is indicative only regarding Iceland.

The operators differ in size considerably. While the subscription volumes of the smallest operators in the survey are some tens or hundreds of thousands, the largest operators have over 30 million subscribers. The largest operators in the survey were Telecom Italia (36,331,000 subscriptions) and T-Mobile (35,474,000 subscriptions). Germany and Italy have the largest subscription volumes in the survey. Iceland, Luxembourg and Estonia are at the other extreme with the smallest subscription volumes.

Figure 1 depicts how market shares, based on subscription volumes, are distributed among the three largest operators and other operators in each country. In all countries, the operators chosen in the survey represent the majority of the total number of subscriptions. The three largest operators have the lowest joint share in the United Kingdom, but even they have a share of 73 per cent. Therefore, the research material is representative of the total market. Appendix 2 provides more detailed information on the operators included in the survey and their subscription volumes.

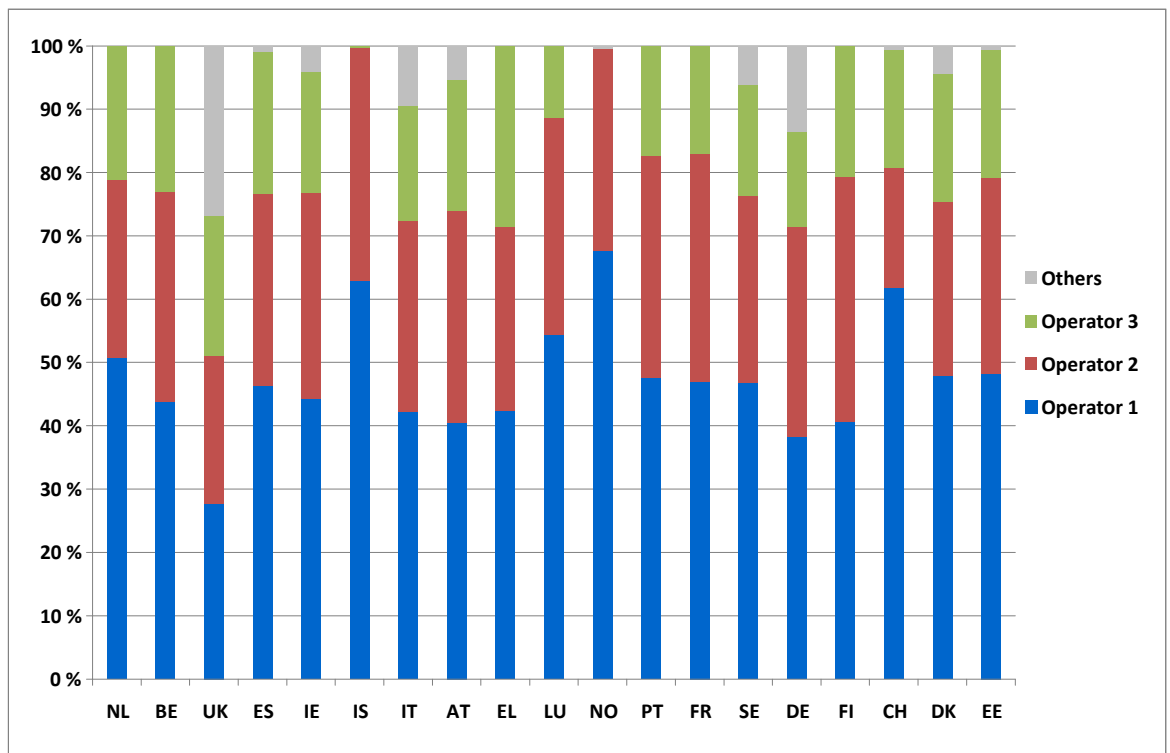


Figure 1. Shares of the total subscription volume held by the three largest operators, 31 Dec 2007.

Based on the market share information regarding subscription volumes, the European field of operators is stable because the market shares have not changed significantly during 2007. The largest changes have taken place in the Netherlands where T-Mobile has been able to grow its market share by 12 per cent and in Greece where the market has undergone relatively many changes during the year. In Finland, DNA has increased its market share by 3 percentage units. More detailed information on the changes in market shares can be found in Appendix 2.

Despite the fairly stable market shares, competition is evident in the supply of services. Prices of mobile broadband services will decrease in the coming years due to the rapid increase in supply. For instance, in Norway an operator, Ice, which at present provides only mobile broadband subscriptions, has entered the market. Another sign of fierce competition is the rapid changes of subscription types. Even while this survey was conducted, some operators changed their subscription selection and pricing completely (e.g. in France).

Searching for the least expensive mobile phone subscription alternative for each user profile involved calculating the price basket value for 168 different subscriptions and pricing alternatives. The calculations were based on 118 different mobile subscriptions. Compared to that, the number of subscriptions that were examined in the survey is several times larger.

The operators had varying pricing practices regarding both voice call and mobile broadband subscriptions. No references to a single commonly-used pricing method or trend can be made.

In about 70 per cent of the cases, the least expensive alternative was a bundle subscription in which a fixed monthly price includes voice calls, text messages or data. About a half of the subscriptions examined were call package subscriptions in which the fixed monthly fee included calls for a certain amount of minutes. The pricing models of the bundles were

also various. In some call packages, text messages and data transmission were included in the price, in others, text messages and data were paid for separately or a separate package needed to be purchased. Nearly a third of the subscriptions had connection fees for calls. Subscription contract periods varied from 0 to 24 months.

3 PRICE BASKET COMPARISON OF MOBILE SUBSCRIPTIONS

3.1 Price Basket I

Figure 2 presents price basket values for User Profile I. Of all countries examined, the basket value is lowest in Finland. In April 2008 the value of the Finnish price basket was €12.74. Other Nordic countries did also well in the comparison: the countries with the lowest values following Finland were Sweden, the Netherlands, Estonia, Norway and Denmark.

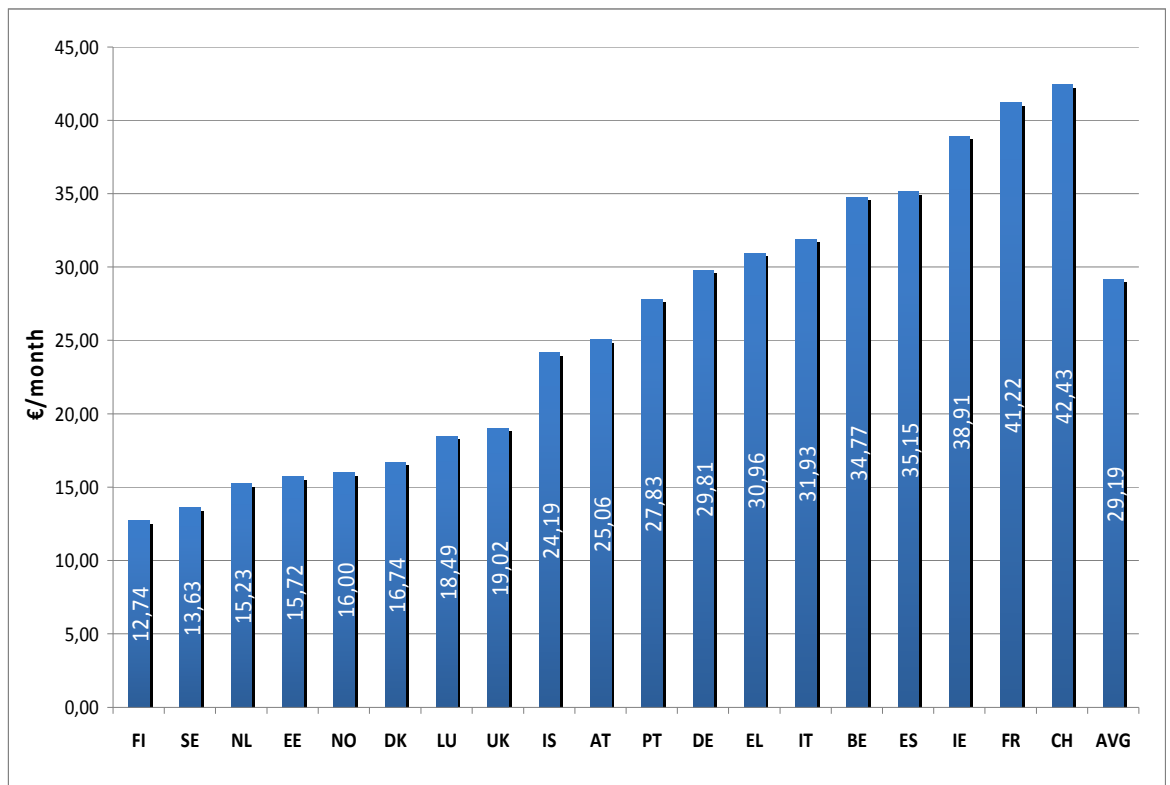


Figure 2. Price basket values for User Profile I in April 2008.

The most expensive price basket for User Profile I is found in Switzerland where the basket value (€42.43) is over three times that of the Finnish basket. Other countries with high basket prices are France, Ireland, Spain and Belgium.

The average basket price weighted by subscription volume is €29.19.

Compared to the previous year, Finland remained the country with the lowest basket price (see Table 6). Finland was the least expensive country also in 2005 and 2006. Of the top countries, Sweden, the Netherlands and Norway improved their placing from last year. The greatest improvement was the United Kingdom's placing which was nine places higher than last year. The placings of Luxembourg, Portugal, Greece, Italy and Spain compare the least favourably to survey results from last year. All five countries dropped five places.

During the past year, the price basket value decreased in 14 countries and increased in 4 countries. Of the survey countries, Estonia has not been included in previous price comparisons.

Table 6. Price basket values for User Profile I in 2007 and 2008 (€/month).

Country	2007	2008	Placing	
			2007	2008
Finland	17.70	12.74	1	1
Sweden	18.10	13.63	3	2
Netherlands	24.30	15.23	5	3
Estonia	n/a	15.72	n/a	4
Norway	37.40	16.00	13	5
Denmark	23.40	16.74	4	6
Luxembourg	17.90	18.49	2	7
United Kingdom	45.20	19.02	17	8
Iceland	34.70	24.19	10	9
Austria	28.20	25.06	7	10
Portugal	27.30	27.83	6	11
Germany	44.30	29.81	16	12
Greece	30.80	30.96	8	13
Italy	32.10	31.93	9	14
Belgium	36.80	34.77	12	15
Spain	35.90	35.15	11	16
Ireland	39.50	38.91	14	17
France	46.30	41.22	18	18
Switzerland	41.90	42.43	15	19
Average	37.90	29.19		

The average basket price weighted by subscription volume has decreased by 23 per cent in a year (€37.90 → €29.19). Compared to previous years, the decrease is significant. The value of the Finnish price basket has decreased 28 per cent within a year. In the price comparison conducted last year, Finland's price basket value had increased by nearly 12 per cent.

The decrease in the Finnish value can be explained largely with the subscriptions included in the present survey. The 2007 survey excluded the less expensive trademarks of Elisa and TeliaSonera (Kolumbus, Saunalahti and TeleFinland) from the Finnish price basket. If the basket value had been calculated in the same way as in 2007, by using only Elisa's and TeliaSonera's own subscriptions, it would have decreased by 12 per cent compared to last year instead of the current 28 per cent.

Price basket values decreased the most in the United Kingdom and Norway where the decrease was over 50 per cent. Compared to Finland, the percentage decrease in price basket values was larger also in the Netherlands, Germany, Iceland and Denmark.

Price basket values have increased from last year only in Luxembourg, Portugal, Switzerland and Greece. However, the increase in each country has been minor.

Compared with 2005, the average value of country-specific price baskets weighted by subscription volume has decreased by 26 per cent (see Table 7). The largest changes have taken place in Norway, the United Kingdom, the Netherlands and Sweden where the values have decreased over 50 per cent in three years. The value of the Finnish price basket for User Profile I has decreased 36 per cent in three years.

Compared with 2005, the price basket value has increased the most in Greece (+17.3%). In addition to Greece, mobile call prices have increased compared to 2005 only in Spain (+4.0%) and France (+3.8%).

Table 7. Development of mobile call basket prices for User Profile I 2005–2008 (€/month).

Country	2005	2006	2007	2008	Δ2007/2008	Δ2005/2008
Austria	36.80	31.00	28.20	25.06	-11.2%	-31.9%
Belgium	42.10	36.70	36.80	34.77	-5.5%	-17.4%
Denmark	22.50	22.60	23.40	16.74	-28.5%	-25.6%
Estonia				15.72		
Finland	19.90	15.90	17.70	12.74	-28.1%	-36.0%
France	39.70	43.30	46.30	41.22	-11.0%	3.8%
Germany	48.30	46.80	44.30	29.81	-32.7%	-38.3%
Greece	26.40	31.30	30.80	30.96	0.5%	17.3%
Iceland	32.90	33.00	34.70	24.19	-30.3%	-26.5%
Ireland	46.90	41.60	39.50	38.91	-1.5%	-17.0%
Italy	36.80	34.40	32.10	31.93	-0.5%	-13.2%
Luxembourg	21.20	21.20	17.90	18.49	3.3%	-12.8%
Netherlands	34.50	30.00	24.30	15.23	-37.3%	-55.8%
Norway	38.30	39.30	37.40	16.00	-57.2%	-58.2%
Portugal	33.30	29.20	27.30	27.83	1.9%	-16.4%
Spain	33.80	33.00	35.90	35.15	-2.1%	4.0%
Sweden	30.50	18.10	18.10	13.63	-24.7%	-55.3%
Switzerland	56.50	41.80	41.90	42.43	1.3%	-24.9%
United Kingdom	44.10	43.40	45.20	19.02	-57.9%	-56.9%
Average	39.50	38.30	37.90	29.19	-23.0%	-26.1%

Figure 3 presents the development of annual minimum, maximum and average values of country-specific price baskets. For User Profile I, the Finnish value has also been the minimum price basket value for four years. In Finland, the changes have followed the general price development in Europe.

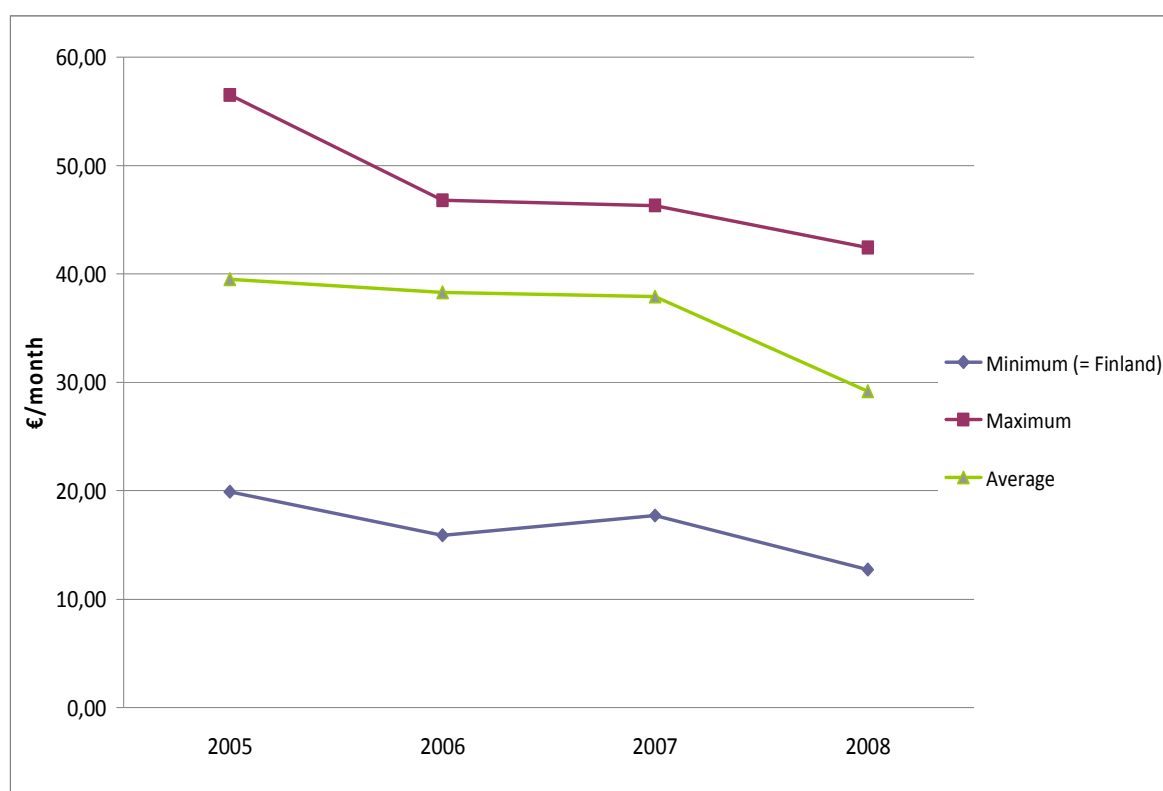
**Figure 3. Development of minimum, maximum and average values of price baskets for User Profile I.**

Figure 4 shows a comparison between the development of price basket values in the Nordic countries and Estonia and the countries with large subscription volumes, i.e. Germany, Italy, United Kingdom and France. Except for France and Italy, the development has been congruent. The differences between prices in different countries have diminished.

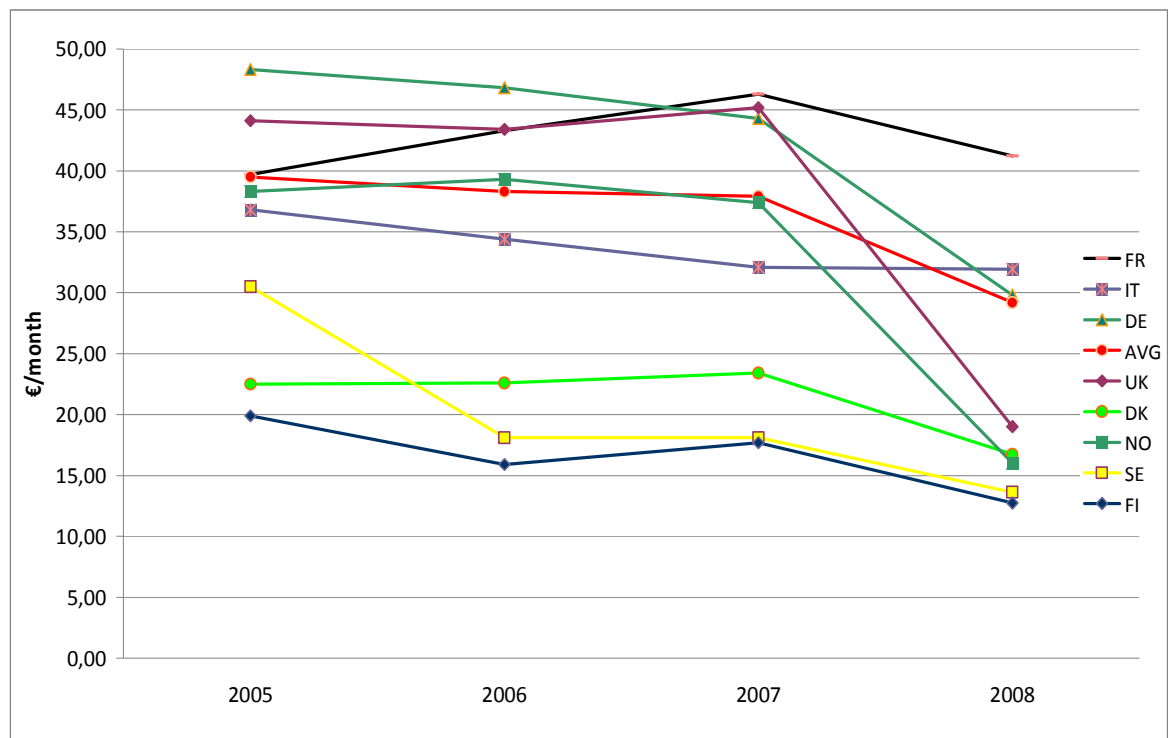


Figure 4. Development of the price basket value for User Profile I in certain countries in 2005–2008.

3.2 Price Basket II

Figure 5 presents the values of country price baskets for User Profile II in April 2008.

Finland is the least expensive country also in terms of User Profile II. In April 2008 the value of the Finnish price basket was €19.89. United Kingdom followed Finland in second place, but the difference between the price baskets of the two countries is more than five euros. The countries with the next lowest prices were Sweden, the Netherlands, Luxembourg and Austria. Of the countries mentioned, Finland, Sweden and the Netherlands were among the least expensive also in User Profile I.

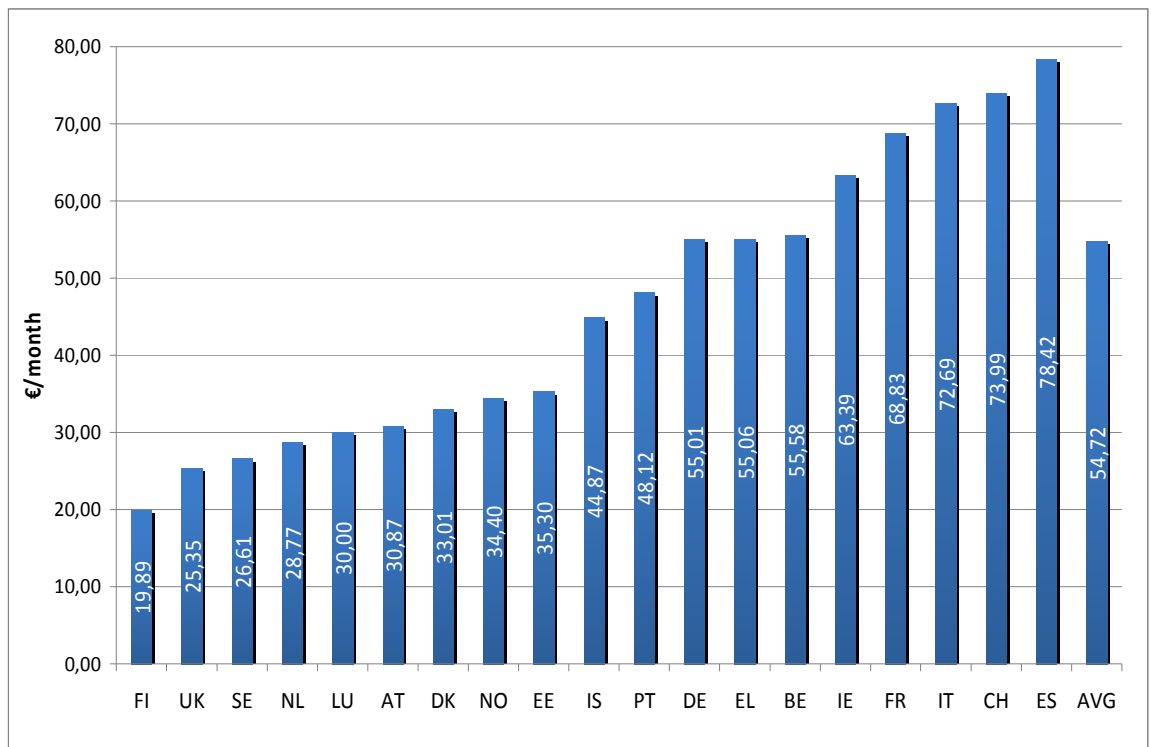


Figure 5. Price basket values for User Profile II in April 2008.

Spain had the highest price basket value for User Profile II (€78.42). The value is nearly four times the Finnish value. Other countries with high basket prices are Switzerland (€73.99), Italy (€72.69), France (€68.83) and Ireland (€63.39). Of the countries mentioned, Switzerland, France, Italy and Spain had high values also for User Profile I.

The average basket price weighted by subscription volumes is €54.72.

A price basket for User Profile II has not been included in previous international surveys of mobile call prices. Thus, the results cannot be compared to figures from previous years.

3.3 Price Basket III

The price basket for User Profile III differs from Price Baskets I and II in terms of the amount of telecommunications services included. Another difference is that Price Basket III includes 50 MB data transmission per month. A price basket for User Profile III has not been included in previous international surveys of mobile call prices.

Figure 6 shows the values of country-specific price baskets in April 2008. Luxembourg has a significantly lower basket price than the other countries examined. Its value is €37.83. The Finnish price basket value is €51.92 which is nearly 40 per cent higher than the Luxembourg price. Finland has nevertheless the second lowest prices in the survey. The countries with the next lowest prices were Austria (€53.84) and Sweden (€62.77).

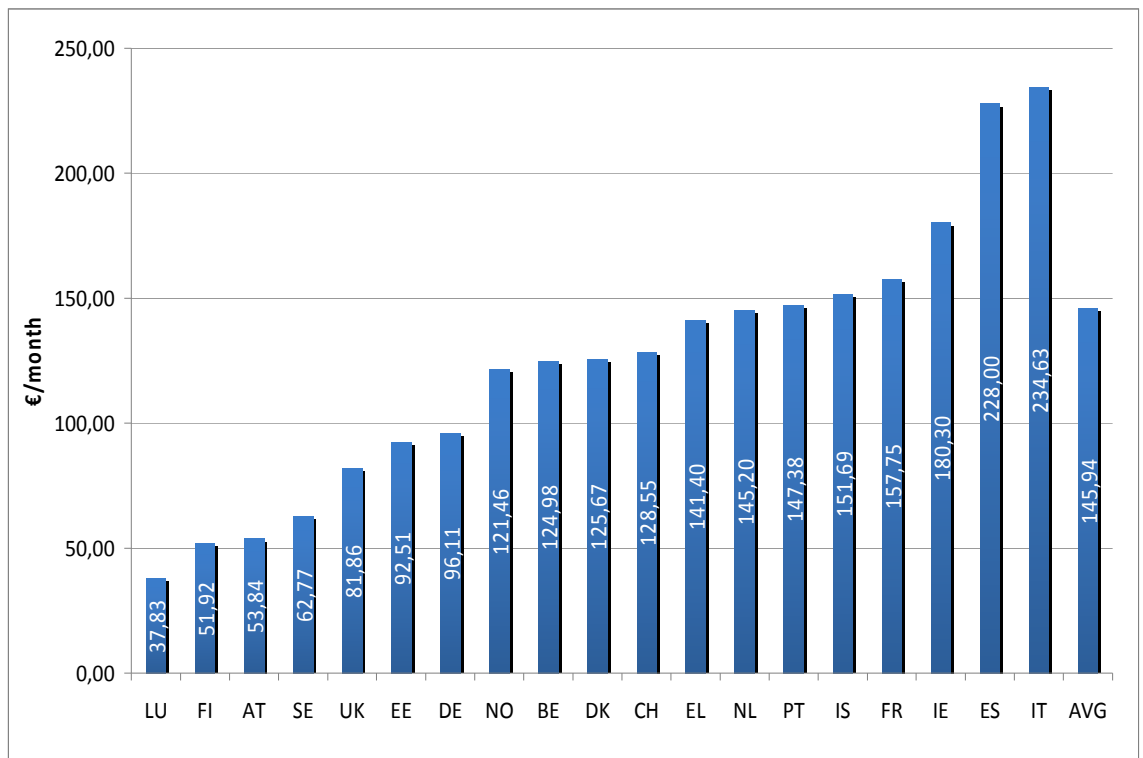


Figure 6. Price basket values for User Profile III in April 2008.

The differences in price basket values are large between the least and the most expensive countries. In Italy, where the basket price is €23463, a user with needs described in User Profile III has to pay for his or her mobile use more than six times as much as a corresponding user in Luxembourg. The price basket value is nearly as high also in Spain (€228.00).

The average basket price weighted by subscription volumes is €145.94. Countries with values above the average include also Ireland, France, Iceland and Portugal. The countries mentioned are among the most expensive also in User Profiles I and II.

4 PRICE BASKET COMPARISON OF MOBILE BROADBAND SERVICES

Chapter 4 analyses and compares price basket values of mobile broadband subscriptions in the survey countries. The Chapter examines also factors that affect subscription prices. No comparison is made to previous years since a similar price basket comparison has not been conducted in earlier surveys.

4.1 Bases of the price comparison

The price comparison examines mobile broadband subscriptions aimed at consumers and the monthly rates of the subscriptions. The subscriptions examined were selected from the supply of the three operators with the largest market shares. The market shares were determined according to the total subscription volume of the mobile operators in the same way as in the price comparison of mobile calls (Chapter 3). The comparison included mobile broadband subscriptions with

1. a nominal speed of data transmission of at least 384 kbit/s (downstream),
2. a fixed monthly price, and
3. unlimited data transmission.

Of the minimum requirements listed above, data transmission speed and fixed monthly charge were not factors that excluded subscriptions from the survey sampling, but the majority of service providers were ruled out because of limitations on the amount of transmitted data. Altogether, only 13 mobile broadband subscriptions (25%) met all minimum requirements. Therefore, the price basket comparison of mobile broadband subscriptions is divided into two parts:

- A price basket comparison of mobile broadband subscriptions that meet the minimum requirements. Price basket values have been calculated for 8 countries based on price information from 13 operators.
- A comparison of country-specific price baskets regarding those subscriptions that meet the first two minimum requirements but do not provide unlimited data transmission.

Contract length and modems that are purchased along with the subscription have not been taken into account in the comparison. In addition, quality factors (e.g. the operator's network coverage) and special offers were not taken into account either. Operators included in the mobile broadband comparison, their price information and their fulfilment of minimum requirements are presented in Appendix 4. Links to the websites of the operators are listed in Appendix 2.

4.2 Factors affecting subscription price

There is variation in the pricing of mobile broadband subscriptions. At least five factors that affect the price can be identified:

1. Broadband network coverage. Operators with large coverage areas can set higher prices for their service than their competitors, if they so wish.
2. Length of subscription contracts. Subscriptions often have a minimum contract length. Typically, 12-month and 24-month contracts are the least expensive pricing alternatives.

3. Nominal speed of data transmission. The speed of a mobile broadband connection depends on network infrastructure, quality of data connection and the qualities of the terminal equipment. All subscriptions selected into the survey meet the minimum criterion set for data transmission speed, but considerable differences in subscription speeds are possible among the operators.
4. Limitations in data transmission. Seventy-five per cent of the subscriptions had limitations for the amount of data transmitted. Limitation practices varied considerably. In most subscriptions, the amount of data that exceeds the transfer limit is priced separately or the speed of the connection is lowered to the GPRS transmission speed (56 kbit/s).
5. Price of the modem. The monthly price can also be affected by the price of the necessary modem. In approximately one half of the subscriptions, the price of the modem was included in the monthly price of the subscription.

4.3 Country-specific price baskets for subscriptions meeting the minimum requirements

When those subscriptions that do not meet the minimum requirements set in the survey are excluded from the examination, only 13 subscriptions are left (25%). The delimiting factor in all cases is the amount of transmitted data, which was limited in nearly all subscriptions. Finland and Norway are the only countries where all operators provided a mobile broadband subscription with unlimited data transmission. In other countries, at least some of the operators set limitations¹.

Figure 7 presents the values of country price baskets of mobile broadband subscriptions for the countries with subscriptions that meet the minimum requirements.

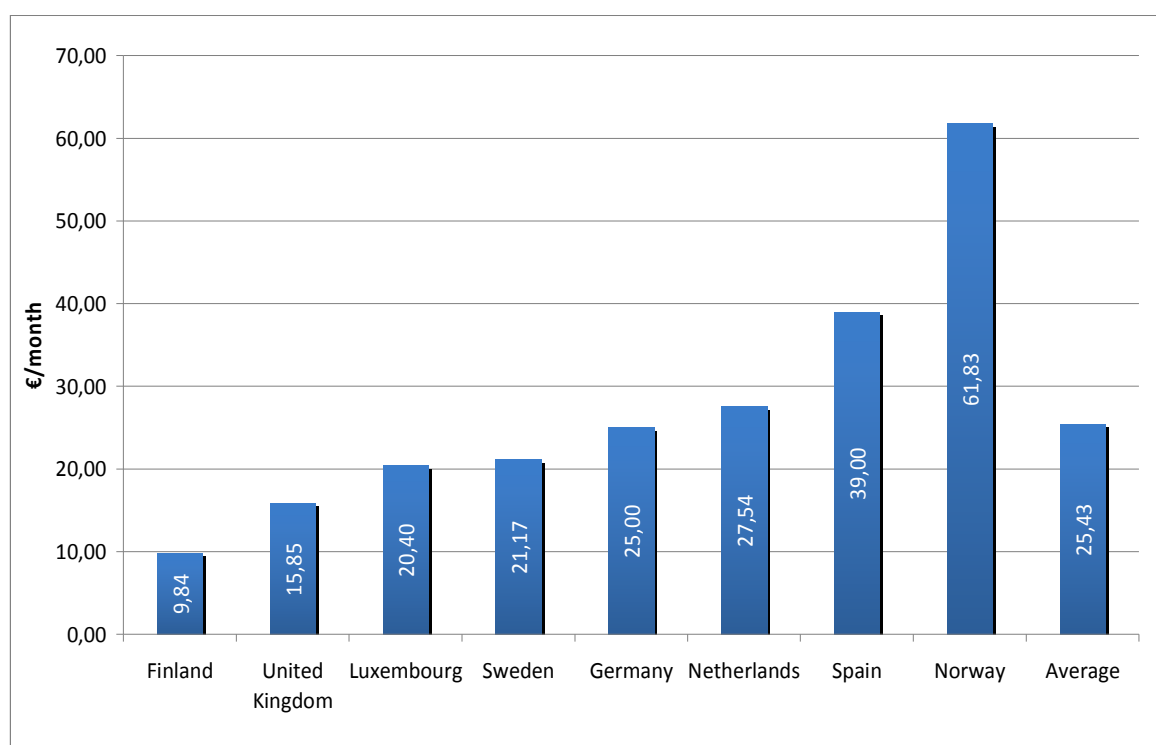


Figure 7. Values of country-specific price baskets of mobile broadband subscriptions in April 2008.

¹ Some operators did not provide information on subscription limitations. In such cases, data transmission was considered unlimited.

Based on the price basket comparison, Finland has the least expensive mobile broadband subscriptions. The Finnish price basket value was €9.84. On the other hand, Norway is the most expensive country in the survey. The Norwegian price basket value is €61.83. From Luxembourg and the Netherlands, the survey included two subscriptions and only one from the United Kingdom, Sweden, Germany and Spain.

Figure 8 presents price information from the thirteen operators that provide mobile broadband subscriptions with unlimited data transmission.

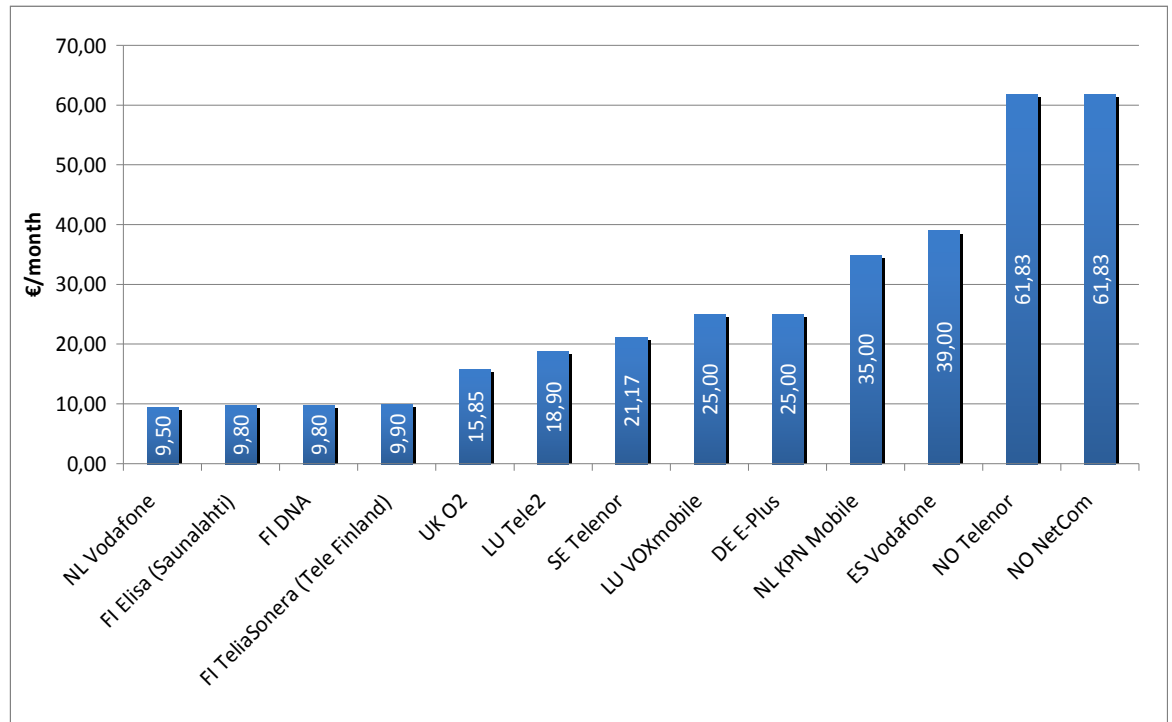


Figure 8. Operator prices of mobile broadband subscriptions in April 2008.

Even though the price basket value is lowest in Finland, the least expensive subscription is Vodafone's in the Netherlands (€9.50/month). Finnish telecommunications operators have the lowest prices for mobile broadband subscriptions after the Dutch Vodafone. The most expensive subscriptions are the unlimited subscriptions in the Norwegian market.

4.4 More extensive examination of price baskets of mobile broadband subscriptions

The survey included also calculations of country-specific price baskets of mobile broadband subscriptions in cases where the minimum requirement of unlimited data transmission was not taken into account. This way, the price basket comparison included 18 countries and 52 operators instead of the 8 countries and 13 operators that met all of the minimum requirements. Only Greece was excluded.

Figure 9 illustrates the values of the country-specific price baskets of mobile broadband subscriptions with respect to the first two minimum requirements (fixed monthly charge and sufficient data transmission speed).

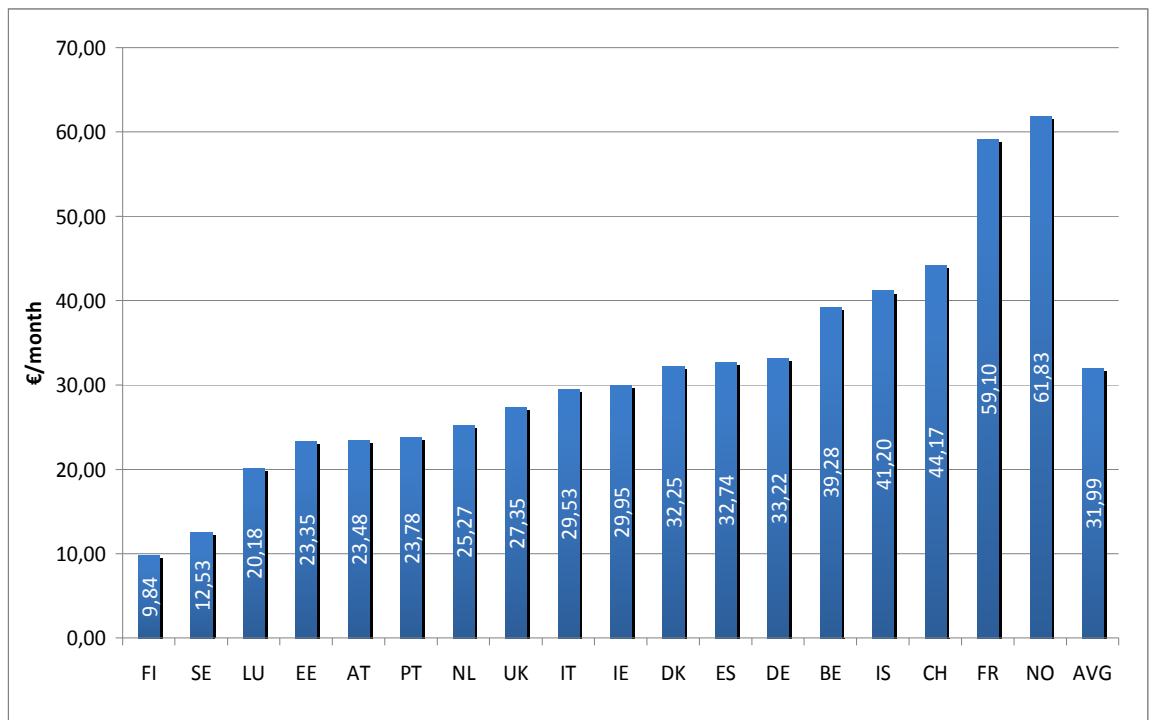


Figure 9. Price basket values of mobile broadband subscriptions in April 2008.

In accordance with the definitions listed above, the average price of mobile broadband subscriptions was €31.99 in April 2008. Finland had the lowest subscription prices with the basket value of €9.84. Sweden is placed second after Finland with a price basket value of €12.53. Norway and France have the most expensive mobile broadband subscriptions with the basket values of €61.83 and €59.10 respectively.

5 SUMMARY

Content and aims of the survey

By conducting a price basket comparison, the survey analysed mobile call and mobile broadband prices in 19 European countries in April 2008. Commensurable price baskets were calculated for each country. Three different price baskets with different user profiles were used for mobile phone subscriptions and one for mobile broadband services. The user profiles are based on the amount of calls made and text messages sent as well as their directivity and the amount of mobile data transmitted. User Profile I depicts low use of a mobile phone, while User Profile III is an example of intensive mobile phone use. The price basket values of User Profile I were compared to values from previous years. The other user profiles were introduced in this survey.

The country-specific price baskets comprised subscriptions from three largest mobile operators in the countries in question. The least expensive consumer subscription that corresponds to the user profile was included from each operator. This way, the results reflect the actual price level of mobile subscriptions for each consumption pattern. The value of a subscription in a country-specific price basket was weighted according to the market share of the operator. The survey included only contract subscriptions. Prepaid and tie-in sales subscriptions, that are very popular in some European countries, were excluded from the survey.

Mobile markets in the survey countries

The combined number of mobile subscriptions in all of the countries included in the survey totalled approximately 466 million at the end of 2007. The subscription volume had increased by 10 per cent from the previous year. The largest country in terms of subscription volume was Germany with approximately 93 million subscriptions. The German figure constituted nearly 20 per cent of the total number of subscriptions in the survey countries. After Germany, the countries with largest subscription volumes were Italy and the United Kingdom. Finland's share of the total subscription volume of all the survey countries was 1.3 per cent making it the 14th largest country in the survey.

There were approximately 80 million third generation 3G subscriptions in the survey countries at the end of 2007. The amount has grown by approximately 60 per cent in a year. The number of 3G subscriptions was highest in Italy, over 23 million, and constituted 27 per cent of all subscriptions in the country. At least a fifth of all subscriptions were 3G subscriptions also in Portugal (24%), Sweden (24%), Norway (24%), Spain (21%), Austria (22%) and Finland (22%).

Country-specific price baskets for mobile calls

Based on the survey, Finland has the over-all lowest mobile call prices. In User Profiles I and II, Finland had the lowest price basket values of all the countries examined. Regarding User Profile I, Finland has had the lowest rates for four consecutive years. Finland has the second lowest rates when comparing more intensive mobile phone use depicted in User Profile III.

The Finnish price basket value for User Profile I has decreased by 28 per cent in a year while the previous survey showed an increase of nearly 12 per cent. The price basket average value weighted by subscription volumes decreased in the survey countries by 23 per cent. Finnish price development has, thus, corresponded to the European average

development. The decrease in the Finnish basket price was partly due to the inclusion of the more affordable trademarks of Elisa and TeliaSonera (Saunalahti, Kolumbus and TeleFinland), which were excluded from the previous surveys. Had they not been included, the basket value would have decreased by approximately 12 per cent.

Table 8 summarises the country-specific price basket values for mobile calls for User Profiles I-III in April 2008.

Table 8. Country-specific price basket values of mobile calls in April 2008 (€/month).

Country	Price Basket I	Price Basket II	Price Basket III
Austria	(10) 25.06	(6) 30.87	(3) 53.84
Belgium	(15) 34.77	(14) 55.58	(9) 124.98
Denmark	(6) 16.74	(7) 33.01	(10) 125.67
Estonia	(4) 15.72	(9) 35.30	(6) 92.51
Finland	(1) 12.74	(1) 19.89	(2) 51.92
France	(18) 41.22	(16) 68.83	(16) 157.75
Germany	(12) 29.81	(12) 55.01	(7) 96.11
Greece	(13) 30.96	(13) 55.06	(12) 141.40
Iceland	(9) 24.19	(10) 44.87	(15) 151.69
Ireland	(17) 38.91	(15) 63.39	(17) 180.30
Italy	(14) 31.93	(17) 72.69	(19) 234.63
Luxembourg	(7) 18.49	(5) 30.00	(1) 37.83
Netherlands	(3) 15.23	(4) 28.77	(13) 145.20
Norway	(5) 16.00	(8) 34.40	(8) 121.46
Portugal	(11) 27.83	(11) 48.12	(14) 147.38
Spain	(16) 35.15	(19) 78.42	(18) 228.00
Sweden	(2) 13.63	(3) 26.61	(4) 62.77
Switzerland	(19) 42.43	(18) 73.99	(11) 128.55
United Kingdom	(8) 19.02	(2) 25.35	(5) 81.86
Average	29.19	54.72	145.94

Mobile call prices were below the average also in other Nordic countries and Estonia for use portrayed in Profile I. The most expensive countries were Switzerland, France and Ireland which had basket prices over three times the Finnish value. During the past year, the price basket value decreased in 14 countries and increased in only 4 countries.

When price baskets for User Profile II were compared, Finland had clearly lower prices than other countries. The difference to United Kingdom in the second place was €5.46. The countries with the next lowest rates were Sweden, the Netherlands, Luxembourg and Austria.

Finland had the second lowest rates when comparing intensive mobile phone use depicted in User Profile III. Luxembourg had the clearly lowest price basket value. The Finnish basket price €51.92 was 37 per cent higher than Luxembourg's. Price basket values for User Profile III varied considerably among the countries. In Italy, mobile use for a Profile III customer cost over six times the price in Luxembourg.

Country-specific price baskets for mobile broadband services

The price basket comparison of mobile broadband services included subscriptions that had a nominal data transmission speed of at least 384 kbit/s downstream, a fixed monthly charge and unlimited data transmission.

Mobile broadband subscriptions from 13 operators in eight countries met the minimum requirements listed above. Finland had the least expensive mobile broadband subscriptions. The price basket value was €9.84 in April 2008. The next lowest basket values were found in the United Kingdom, Luxembourg and Sweden. In these countries, mobile broadband prices were approximately double the Finnish price. Norway had the highest price basket value. In Norway, a mobile broadband subscription that met the minimum requirements cost on the average six times the Finnish price (€61.83).

Three out of four mobile broadband subscriptions had limited data transmission and were, therefore, excluded from the comparison. The data transmission limitations ranged from a couple of hundred megabytes to ten gigabytes. Pricing models based on time were also commonly used. Price basket values were calculated for each country also so that subscriptions with limited data transmission were included. Finland was the least expensive country also in that comparison.

Evaluation of the survey results

Finnish communications authorities have conducted international price surveys on mobile call prices since 2001. Calculation methods and models used in the price basket surveys are, therefore, well-established. This survey followed the user profile and price basket structure defined in previous surveys which makes the results more comparable to results from previous years.

The present survey introduced three different user profiles depicting different kinds of mobile phone use and a user profile for mobile broadband services, whereas the previous studies used only one profile. The survey results show that the country and operator price basket values vary between different user profiles in terms of how expensive they are. Therefore, examining several profiles presents more reliable information on the price levels of telecommunications services in different countries.

The mobile phone subscription market is very dynamic in most of the European countries, even though market shares have undergone only minor changes. Names and pricing models of subscriptions change rapidly, and various discount campaigns play a significant role in subscription sales. The present survey did not take momentary discount campaigns into account. Pre-paid subscriptions, which are popular in many countries, were also excluded from the survey. Despite these factors, the survey presents a good and reliable picture of the price level of mobile calls in Europe.

The mobile broadband market is developing and expanding rapidly. Subscription types and pricing models are not yet very established. Thirteen operators in eight countries provided subscriptions that met the minimum requirements set in the present survey. In that respect, the price comparison between different countries is indicative only. It is highly likely that in the spring of 2009 the supply of mobile broadband subscriptions is much more abundant than at present.

The survey examined three mobile operators with the largest market shares from each country. Virtual operators and other mobile operators functioning without their own networks are not among the largest operators, which means the price information in the

survey is in that respect slightly insufficient. However, the survey does take into account the more affordable trademarks of the large operators. The operator markets in the survey countries are rather centralised, so that the three largest operators account for the majority of the total subscription volume.

When comparing prices of mobile calls, it should be borne in mind that price baskets measure the call prices at a specific point in time. Market changes may be quick in terms of both subscription types and prices. For instance, changes in the competitive situation can lead to significant and rapid changes in price basket values. The price changes of individual operators, on the other hand, affect the basket value only in proportion to the market share of the operator.

SOURCES

Kauppalehti 2 April 2008.

Matkapuheluhinnat 2007 – Kansainvälinen vertailu. Liikenne- ja viestintäministeriön julkaisu 27/2007. http://www.lvm.fi/fileserver/LVM27_2007.pdf.

Websites and financial reviews of mobile operators.

Mobile Communications Europe (2008). Issue 464, March 4, 2008.

Mobile Communications Europe (2008). Issue 465, March 18, 2008.

Mobile Communications Europe (2008). Issue 466, April 15, 2008.

Mobile Communications Europe (2008). Issue 467, April 29, 2008.

Mobile Communications Europe (2008). Issue 468, May 13, 2008.

Mobile Communications Europe (2008). Issue 469, May 27, 2008.

Appendix 1. Survey countries

Country	Abbreviation	Currency	Average rate 1 Apr 2008
Austria	AT	euro	
Belgium	BE	euro	
Denmark	DK	crown	DKK 1 = EUR 0.1341
Estonia	EE	crown	EEK 1 = EUR 0.0639
Finland	FI	euro	
France	FR	euro	
Germany	DE	euro	
Greece	EL	euro	
Iceland	IS	crown	ISK 1 = EUR 0.0083
Ireland	IE	euro	
Italy	IT	euro	
Luxembourg	LU	euro	
Netherlands	NL	euro	
Norway	NO	crown	NOK 1 = EUR 0.1239
Portugal	PT	euro	
Spain	ES	euro	
Sweden	SE	crown	SEK 1 = EUR 0.1064
Switzerland	CH	franc	CHF 1 = EUR 0.6354
United Kingdom	UK	pound sterling	GBP 1 = EUR 1.2677
Source: Kauppalehti 2 April 2008 (exchange rates).			

*) Member State of the European Union since 1 May 2004.

**) Not a member of the European Union.

Appendix 2. Telecommunications operators included in the survey

Country	Operator	Subscription volume	Market share % Δ 2007/2008		website
Austria	Mobilkom	3,959,300	40.5%	1.2%	http://www.a1.net/
	9,262,300 T-Mobile	3,273,000	33.5%	-0.9%	http://www.t-mobile.at/
	One	2,030,000	20.8%	-0.9%	http://www.one.at/
Belgium	Belgacom Mobile	4,620,000	43.9%	-1.2%	http://customer.proximus.be/
	10,536,610 Mobistar	3,489,860	33.1%	0.1%	http://offer.mobistar.be/
	Base	2,426,750	23.0%	1.1%	http://www.base.be/
Denmark	TDC Mobil	2,937,000	47.9%	-0.5%	http://tdc.dk/
	5,866,000 Sonofon (Selhenter)	1,680,000	27.4%	-1.2%	https://www.selvhenter.dk/
	Telia	1,249,000	20.4%	0.8%	http://telia.dk/
Estonia	EMT	765,000	47.2%	n/a	http://www.emt.ee/
	1,578,350 Tele2	490,550	30.3%	n/a	http://www.tele2.ee/
	Elisa	322,800	22.1%	n/a	http://www.elisa.ee/
Finland 6,040,600	TeliaSonera (Tele Finland)	2,461,000	40.7%	-2.6%	http://www.tele.fi/
	Elisa (Kolumbus)	2,334,600	38.7%	-0.5%	http://www.kolumbus.com/
	DNA	1,245,000	20.6%	3.1%	http://www.dnaoy.fi/
	France 52,751,000	Orange (ten)	25,646,000	47.0%	0.1%
SFR		19,709,180	36.1%	-0.1%	http://www.sfr.fr/
Bouygues Telecom		9,256,000	16.9%	-0.1%	http://www.bouyguetelecom.fr/
Germany		T-Mobile	35,474,000	38.3%	0.2%
	80,056,260 Vodafone	30,663,680	33.1%	-0.8%	http://www.vodafone.de/
	E-Plus	13,918,580	15.0%	0.5%	http://www.eplus.de/
Greece	Cosmote	6,476,930	42.5%	2.3%	http://www.cosmote.gr/
	15,252,310 Stet Hellas	4,420,380	28.9%	7.7%	http://www.wind.com.gr/
	Panafon	4,355,000	28.6%	-2.0%	http://www.vodafone.gr/
Iceland	Iceland Telecom	205,000	62.8%	-1.2%	http://www.siminn.co.uk/
	326,100 Og Vodafone	120,500	37.0%	1.0%	http://www.vodafone.is/
	Nova	600	0.2%	0.2%	http://www.nova.is/
Ireland	Vodafone	2,242,350	44.4%	-1.3%	http://www.vodafone.ie/
	4,850,350 O2	1,646,000	32.5%	-2.9%	http://www.o2online.ie/
	Meteor Communications	962,000	19.0%	1.6%	http://www.meteor.ie/
Italy	Telecom Italia	36,331,000	42.2%	0.4%	http://www.tim.it/

78,060,760	Vodafone	26,093,760	30.3%	0.2%	http://www.vodafone.it/
	Wind	15,636,000	18.2%	-0.7%	http://www.wind.it/
Luxembourg	P&T Luxemburg	362,000	54.4%	2.9%	http://www.luxgsm.lu/
665,560	Tele2	229,000	34.4%	0.1%	http://www.tele2tango.lu
	VOXmobile	74,560	11.2%	-3.0%	http://www.vox.lu/
Netherlands	KPN-Mobile	8,826,450	50.8%	1.4%	http://www.kpn.com/
17,369,840	T-Mobile	4,889,000	28.2%	12.2%	http://www.t-mobile.nl/
	Vodafone	3,654,390	21.0%	-0.8%	http://www.vodafone.nl/
Norway 5,018,000	Telenor Mobile (djuice)	3,406,000	67.6%	1.2%	http://www.telenor.no/
	NetCom	1,612,000	32.0%	-1.6%	https://netcom.no/
Portugal	TMN	6,261,000	47.7%	-0.2%	http://www.tmn.pt/
13,137,800	Vodafone	4,599,900	35.0%	0.1%	https://loja.vodafone.pt/
	Optimus	2,276,900	17.3%	0.0%	http://www.optimus.pt/
Spain	Telefonica Moviles	22,826,600	46.4%	0.1%	http://www.movistar.es/
48,779,000	Vodafone	14,861,400	30.2%	0.5%	http://www.vodafone.es/
	Orange	11,091,000	22.5%	-1.5%	http://movil.orange.es/
Sweden	TeliaSonera	4,932,000	46.9%	1.8%	http://www.telia.se/
9,886,000	Tele2	3,099,000	29.4%	-4.1%	http://www.tele2.se/
	Telenor	1,855,000	17.6%	1.0%	http://www.telenor.se/
Switzerland	Swisscom Mobile	4,977,400	61.8%	-0.7%	http://en.swisscom.ch/
8,011,400	TDC Switzerland (Sunrise)	1,524,000	18.9%	0.5%	http://www.sunrise.ch/index.htm
	Orange	1,510,000	18.8%	0.0%	http://www.orange.ch/
United Kingdom	O2	20,342,000	27.6%	0.5%	http://www.o2.co.uk/
53,978,590	T-Mobile	17,311,000	23.5%	-0.8%	http://www.t-mobile.co.uk/
	Vodafone	16,325,590	22.2%	1.1%	http://shop.vodafone.co.uk/

Source: Mobile Communications Europe (2008) and the websites of the mobile operators.

Appendix 3. Mobile subscriptions included in the survey

Country	Operator	Profile I subscription	Profile II subscription	Profile III subscription
Austria	Mobilkom	A1 Easy	A1 Easy	A1 Absolut Zero
	T-Mobile	Fairplay Smart	Fairplay	Fairplay Plus
	One	Kleine Plaudertasche	Kleine Plaudertasche	Große Plaudertasche
Belgium	Belgacom Mobile	Smile Together	Smile Together	Smile Together
	Mobistar	My15	My45	MaxAll-In
	Base	Base Zero	Base Gold	Base Platinum
Denmark	TDC Mobil	Simple	Simple	Simple
	Sonofon (Selhenter)	Selhenter	Selhenter	Tale+
	Telia	Telia Xpress 2.0	Telia Xpress 2.0	Telia Xpress 2.0
Estonia	EMT	Noova	Noova	Noova
	Tele2	Hinnaliider 75	Hinnaliider 75	Hinnaliider 75
	Elisa	Elisa 250	Elisa 500	Elisa 1000
Finland	TeliaSonera (Tele Finland)	Pulina	Puhepaketti 500	Puhepaketti 1000
	Elisa (Kolumbus)	Kolumbus K1	Puhepaketti P1	Puhepaketti P2
	DNA	DNA Onni	DNA Ilona	DNA Urho
France	Orange (Ten)	Intense	Intense	3h30
	SFR	Essentiel 3H	Essentiel Pro Ajustable 6H	Illimythics Pro 15H
	Bouygues Telecom	2 Fois Plus (2h+2h)	2 Fois Plus (3h+3h)	Neo
Germany	T-Mobile	Relax 200	Relax 400	Relax 1000
	Vodafone	Vodafone KombiPakete Wochenende SIM only 120	Vodafone SuperFlat SIMonly	Vodafone KombiPakete Wochenende SIM only 1200
	E-Plus	Zehnsation Classic Web	Zehnsation Classic Web	Time & More All in 1000
Greece	Cosmote	Cosmote 150	Cosmote 300	Cosmote 1000
	Stet Hellas	Wind Flexy 30	Wind-280	Wind Max 300
	Panafon	Vodafone 100	Vodafone 300	Vodafone 900
Iceland	Iceland Telecom	Better Way	Better Way	Better Way
	Og Vodafone	Vodafone Simply	Vodafone Simply	Vodafone Simply
	Nova	3G frelsi	3G frelsi	3G frelsi
Ireland	Vodafone	Perfect Choice 100	Perfect Choice 400	Perfect Choice 600
	O2	Active Life 150	Active Life 250	Active Life 650
	Meteor Communications	Meteor Talk 60	Meteor Talk 300	Meteor Talk 600
Italy	Telecom Italia	EasyTIM	EasyTIM	EasyTIM

	Vodafone	Stile Libero	Stile Libero	6Libero
	Wind	Wind10	Wind4 Professional	Wind4 Professional
Luxembourg	P&T Luxemburg	Basic	Relax	Relax
	Tele2	Knock-Out	EasyTotal	EasyTotal
	VOXmobile	All inclusive 10	All inclusive 30	All inclusive 30
Netherlands	KPN Mobile	Flexibel SIM only 17,50	Flexibel SIM only 34,50	Flexibel 130
	T-Mobile	Relax 200 SIM only	Relax 400 SIM only	Relax 1500
	Vodafone	Vodafone 7,50 SIM Only	Vodafone 50,00 SIM Only	Vodafone Basic Plan 1500
Norway	Telenor Mobile (djuice)	FriHet / zero (djuice)	FriVenner	FriVenner
	NetCom	SmartTalk	SmartTalk	SmartTalk
Portugal	TMN	Pos Pago	Pos Pago	Pos Pago
	Vodafone	Best Total	Best Total	Best Total
	Optimus	Plano 30	Plano 30	Plano 30
Spain	Telefonica Moviles	Tiempo Liebre	Tiempo Liebre	Tiempo Liebre
	Vodafone	Vitamina	Vitamina	Vitamina
	Orange	Contrato decreciente	Contrato decreciente	Contrato decreciente
Sweden	TeliaSonera	Telia Mobil Bingo	Telia Mobil Bingo	Telia Mobil Bingo
	Tele2	Snackis	Snackis	Snackis
	Telenor	Telenor Abonnement 99	Telenor Abonnement 99	Privat FastPris
Switzerland	Swisscom Mobile	NATEL® basic liberty	NATEL® pro liberty	NATEL® pro liberty
	TDC Switzerland (Sunrise)	Sunrise zero	Sunrise max	Sunrise max
	Orange	Optima 100	Optima 400	Maxima
United Kingdom	O2	Sim Only (simplicity) £15	Sim Only (simplicity) £20	Sim Only (simplicity) £30
	T-Mobile	Solo 15	Solo 20	Solo 30
	Vodafone	Anytime 225	Anytime 500	Anytime 750

Appendix 4. Providers of mobile broadband subscriptions included in the survey

Country	Operator	Price, €	Limitation, GB	Contract period, months	Meets minimum requirements
Netherlands	KPN Mobile	35.00		12	X
	Vodafone	9.50			X
	T-Mobile	19.50	0.25		
Belgium	Belgacom Mobile	49.99	5	12	
	Mobistar	35.00	1		
	Base	25.00	1	12	
France	Orange	62.00	1	24	
	SFR	69.00	3	24	
	Bouygues Telecom	29.90	0.2	24	
Luxembourg	P&T Luxemburg	20.00	2		
	Tele2	18.90		24	X
	VOXmobile	25.00			X
Denmark	TDC Mobil	30.71	10		
	Sonofon	40.10	10		
	Telia	25.34	10		
Ireland	Vodafone	29.90	5		
	O2	30.00	10	12	
	Meteor Communications	30.00	10		
United Kingdom	O2	15.85		12	X
	T-Mobile	36.76	10	12	
	Vodafone	31.69	5		
Greece	Cosmote				
	Panafon				
	Stet Hellas				
Portugal	TMN	22.50	1		
	Vodafone	22.50	1		
	Optimus	29.90	6		
Spain	Telefonica Moviles	30.00	1		
	Vodafone	39.00			X
	Amena	30.00	1		
Finland	TeliaSonera (Tele Finland)	9.90			X
	Elisa (Saunalahti)	9.80			X
	DNA	9.80		24	X
Sweden	Telia	10.53	5	18	
	Tele2	10.53	5		
	Telenor	21.17		12	X
Estonia	Elisa	22.30	3		
	EMT	25.50	3		
	Tele2	20.77	3		

Norway	Telenor	61.83		12	X
	NetCom	61.83			X
Iceland	Iceland Telecom				
	Vodafone	41.33	1		
	Nova	16.52	1		
Germany	T-Mobile	34.95	10	24	
	Vodafone	34.95	10		
	E-Plus	25.00		24	X
Austria	Mobilkom	24.00	5	24	
	T-Mobile	25.00	10	24	
	One	20.00	15		
Switzerland	Swisscom Mobile	50.20	5		
	TDC Switzerland (Sunrise)	31.13	2	12	
	Orange	37.49	2.5		
Italy	TIM	29.00	1	24	
	Vodafone	30.00	100 h	24	
	Wind	30.00	5	24	

Source: The websites of the mobile operators.